The 34th World Congress on

Controversies in Obstetrics, Gynecology & Infertility (COGI)

All About Women's Health

November 12-14, 2026

Athens, Greece

Congress Program



www.cogi-congress.org

Halls

COGI Hall Name	Venue Hall Name	Level	Track
Hall A	Nikos Skalkotas Auditorium	Level 0	ART/IVF/Infertility
Hall B	MC 2	Level 0	Embryology & Oral Presentations
Hall C	MC 3	Level 0	Gynecology
Hall D	Banqueting Hall	Level A1	Sessions on Thursday & Fetomaternal Medicine
Hall E	MC 3.4	Level	Oral Presentations & moderated e-Poster sessions
	MC 3.5	Level 0	Speakers' Preview Room
	MC 3.3	Level 0	Secretariat Office
	near MC 2		Cloakroom
Registration Area			e-Poster screens & photo wall

Notes

Table of Contents

Timetable 4

Welcome from the COGI 2026 chairpersons & scientific committee 5

General information 6

Scientific program 7

Faculty index for the scientific program 24

Oral and moderated e-Poster presentation program 25

Abstracts 47

Industry 182

Timetable

PLENARY SESSION | INDUSTRY SUPPORTED SESSION | SCIENTIFIC SESSIONS | ORAL PRESENTATIONS | MODERATED E-POSTERS

Thursday, November 12, 2026

	HALL B *MC 2*	HALL C *MC 3*	HALL D *Banqueting Hall*	HALL E *MC 3.4*
09:00-14:00		Workshop *** Limited spaces available*		
13:00-14:30	*14:30-17:30* ** Industry supported course		Do we trust medical publications?	Oral presentation 1
14:30-15:30		Oral presentation 2	Integrity in science	Oral presentation 3
15:30-16:00		*Coffee Break*		
16:00-17:00		Oral presentation 4	Obesity: Risk during different phases of life	Moderated e-Posters 1
17:00-18:30			What is new in our field?	Oral presentation 5
18:30-19:30			**OPENING SESSION:** Keynote lecture in honor of Nobel Prize Laureate Robert G. Edwards Young Scientist Best Abstract Award	
19:30-20:30		*Networking Reception (drinks and dry snacks)*		

** pre-registration is required

Friday, November 13, 2026

	HALL A *Nikos Skalkotas Auditorium* **ART/IVF/Infertility**	HALL B *MC 2* **Embryology**	HALL C *MC 3* **Gynecology**	HALL D *Banqueting Hall* **Fetomaternal Medicine**	HALL E *MC 3.4* **Oral Presentations & moderated e-Posters**
08:30-10:00	Artificial Intelligence (AI)	AI and automation in IVF laboratory	Surgery in endometriosis and adenomyosis	From prediction to prevention in obstetrics	Moderated e-Posters 2
10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*				
10:30-12:00	Surprise me with… Unexpected solutions…	Vitrification	Optimizing long term menopause health	IUGR – Intrauterine Growth Restriction	Oral presentation 6
12:00-12:05	*Change of session*				
12:05-12:30	Plenary Session				
12:30-12:35	*Change of session*				
12:35-13:35		Industry supported session	Industry supported session		Oral Presentation 7
13:35-14:30	*Lunch break, visit the exhibition, and e-posters viewing*				
14:30-15:30	Implantation failure	IVM and immature oocytes	Menopause symptoms – genesis, implications and management	Large for Gestational Age (LGA) – being large is not so simple	Oral Presentation 8
15:30-15:35	*Change of session*				
15:35-17:00	Simple less expensive IVF?	Quo Vadis PGT-A?	Hormone dependent disorders in pre and peri menopausal women	Controversies around PROM and PPROM	Oral Presentation 9
17:00-17:20	*Coffee break, visit the exhibition, and e-posters viewing*				
17:20-18:30	Management of uterine fibroids	An embryo is an embryo is an embryo?	POI and early menopause	Controversies in twins	Oral Presentation 10

Saturday, November 14, 2026

	HALL A *Nikos Skalkotas Auditorium* **ART/IVF/Infertility**	HALL B *MC 2* **Oral presentations**	HALL C *MC 3* **Gynecology**	HALL D *Banqueting Hall* **Fetomaternal Medicine**	HALL E *MC 3.4* **Oral Presentations & moderated e-Posters**
08:30-10:00	PMOS – the new PCOS	Oral presentation 11	Novel menopause and non-hormonal approaches in menopause	Preterm delivery	Oral presentation 12
10:00-10:30	*Coffee break, visit the exhibition and moderated e-posters*				
10:30-12:00	PGT-A	Oral presentation 13	Infertility and surgery	Controversial issues in labor and delivery	Oral presentation 14
12:00-12:05	*Change of session*				
12:05-12:30	Plenary Session				
12:30-13:30	*Lunch break, visit the exhibition, and e-posters viewing*				
13:30-15:00	Q & A	Oral presentation 15	Menopause and endometriosis	Diabetes and obesity	Oral Presentation 16
15:00-16:30	Ovarian stimulation	Oral Presentation 17	Imaging in gynecology	Panel experts case discussion – Daily dilemmas in modern obstetrics	Oral Presentation 18

Words of Welcome
from COGI Chairpersons

Dear Colleagues,

Welcome to the **34th World Congress on Controversies in Obstetrics, Gynecology, and Infertility (COGI)**, taking place in **Athens, Greece**, from **November 12–14, 2026**.

This year's congress will once again bring together world-renowned experts in OBGYN and infertility. The scientific program will address the most pressing and controversial issues in the field through structured debates, focused discussions, and interactive sessions. As in previous years, COGI will offer discussion time for interaction between speakers and delegates, encouraging open dialogue, critical thinking, and networking across disciplines and geographies.

Athens, one of Europe's most historic and vibrant capitals, provides a unique setting for this exchange of knowledge. Combining state-of-the-art congress facilities with rich cultural heritage, Mediterranean hospitality, and excellent accessibility, Athens is an ideal backdrop for meaningful scientific collaboration and collegial meetings.

Welcome to Greece and to yet another unforgettable COGI experience.

With warm regards,
COGI Congress Co-Chairpersons

2026 COGI COMMITTEES



Zion Ben Rafael
Israel



Bart Fauser
Netherlands



Basil Tarlatzis
Greece



Anja Pinborg
Denmark



Laura Rienzi
Italy



Rita Vassena
Spain

Honorary President



Rene Frydman
France

SCIENTIFIC COMMITTEES

IVF/ART/Infertility

George L. Adonakis, *Greece*
Konstantinos Dafopoulos, *Greece*
Stratis Kolibianakis, *Greece*
Dimitris Loutradis, *Greece*
Antonis Makrigiannakis, *Greece*
Leonidas Zepiridis, *Greece*

Gynecology

Nick Panay, *UK*
Stavros Athanasiou, *Greece*
Grigoris F. Grimbizis, *Greece*
Athanasios Protopapas, *Greece*
Alexandros Rodolakis†, *Greece*

Fetomaternal Medicine

Yariv Yogev, *Israel*
Asma Khalil, *UK*
George Daskalakis, *Greece*
Apostolos M. Mamopoulos, *Greece*
Apostolos Athanasiadis, *Greece*
Themistoklis Dagklis, *Greece*
Panos Antsaklis, *Greece*

ENDORSING SOCIETIES

Hellenic Society of Fertility & Sterility

Hellenic Society for Assisted Reproduction

Hellenic Society for Maternal-Fetal Medicine

Athens Convention Bureau

General Information

VENUE
MEGARON ATHENS INTERNATIONAL CONFERENCE CENTRE (MAICC)
Vas. Sofias & Kokkali 115 21, Athens, Greece

LANGUAGE
The official language of the congress in English.

CONGRESS HOURS
Thursday, November 12	Courses: 09:00 onwards
	Scientific Program: 13:00-19:30 *(Networking Reception - 19:30-20:30)*
Friday, November 13	08:30-18:30
Saturday, November 14	08:30-16:30

CONGRESS ADMISSION – NAME BADGE
Admission to the scientific sessions, exhibition area and e-Posters is available to registered delegates only.

EXHIBITION OPENING HOURS
Thursday, November 12	from 09:00 *(Networking Reception: 19:30-20:30)*
Friday, November 13	09:30-17:30
Saturday, November 14	09:30-13:30

POSTERS
All the posters are presented in electronic format.

WIFI
Open WiFi available in all areas of the hotel and congress venue
Username: **cogi2026**
Password: **athens**

CERTIFICATE OF ATTENDANCE (NON-CME/CPD)
Certificates of attendance will be sent by email after the congress to all registered delegates.

CME ACCREDITATION
The 34th COGI Congress has been accredited by the European Accreditation Council for Continued Medical Education (EACCME®) for a maximum of **19 CME credits** (ECMEC®s).
After the congress, you will receive a link by email, to complete an online survey. Your certificate will be sent to you approximately 60 days after completion of the survey.
Industry, oral presentation and moderated e-Poster sessions do not form part of the CME program.
Deadline to complete the survey: **December 3, 2026**. This is an absolute deadline, and no surveys can be submitted after this date.
** **Important to note:** CME certificates will only be issued to delegates who have scanned their badges per session AND who complete the post congress report. The accrediting body will not accept scanned hours without the completed survey nor will they accept the completed survey without scanned hours. The responsibility is on the delegate to ensure your badge is scanned for every session attended and the survey is completed within the deadline given. The CME certificate will reflect scanned hours only (and not hours claimed on the survey).

LIABILITY AND INSURANCE
The COGI Congress secretariat and the organizers cannot accept liability for personal accidents, or loss or damage to private property of participants, either during or directly arising from the 34th COGI Congress.

RECORDING POLICY
Recording (photographic, video and audio) of the session is **strictly prohibited**. Please note the congress is not recorded.

SOCIAL MEDIA
Follow COGI social media pages for the latest updates, key date reminders, and discussions with colleagues and experts from around the world.
LinkedIn Page: linkedin.com/in/cogi-congress-4470415
LinkedIn Group: linkedin.com/groups/4229161
X.com: x.com/cogicongress/#COGI
Instagram: www.instagram.com/cogi_congress
Youtube: youtube.com/cogicongress

Scientific Program



Thursday, November 12, 2026

See page 25 for oral presentations, and page 37 for moderated e-Poster presentations

Hall D

13:00-14:30	DO WE TRUST MEDICAL PUBLICATIONS?	HALL D
Capsule	Are clinical activity and scientific evidence mutually exclusive? Huxley: Facts do not stop existing even if we don't know or deny their existence.	
Chairpersons	**Bart Fauser**, *Netherlands* **Zion Ben Rafael**, *Israel*	
13:00-13:15	FMM: Why we keep using fetal heart rate monitoring - an unproven technology that is associated with high CS rate and its related complications **Giuseppe Rizzo**, *Italy*	
13:15-13:20	Discussion	
13:20-13:35	IVF: Ovulation stimulation - Do we trust scientific evidence? **Valeria Vanni**, *Italy*	
13:35-13:40	Discussion	
13:40-13:55	GYNECOLOGY: Endometriosis: Enucleation of endometriomas can lead to ovarian failure - should we not operate until completion of family planning? **Jacques Donnez**, *Belgium*	
13:55-14:00	Discussion	
14:00-14:15	GENETICS: PGT-A: Lack of trust in evidence, ignorance, or just ignoring it? **Sebastiaan Mastenbroek**, *Netherlands*	
14:15-14:20	Discussion	
14:20-14:30	General Discussion	

14:30-15:30	INTEGRITY IN SCIENCE	HALL D
Capsule	COGI continues this educational series by examining the escalating "paper mill" crisis in scientific publishing. Notably, fraudulent authors were registered and later proposed as reviewers, and it took two years to uncover the forgery network. The peer-review process is also becoming increasingly challenging.	
Chairpersons	**Basil Tarlatzis**, *Greece* **Laura Rienzi**, *Italy*	
14:30-14:45	Peer review process is deteriorating: Where to go from here - Can AI assist or replace reviewers? **Edgardo Somigliana**, *Italy*	
14:45-14:50	Discussion	
14:50-15:05	Peer review is in peril: What can we do about it? **Catherine Racowsky**, *France*	
15:05-15:10	Discussion	
15:10-15:25	How to reduce research waste: What can scientists, universities and funding bodies do about it **Bart Fauser**, *Netherlands*	
15:25-15:30	Discussion	

15:30-16:00	*Coffee break*

16:00-17:00	OBESITY: RISK DURING DIFFERENT PHASES OF LIFE	HALL D
Capsule	Obesity can reduce ovulation, leading to hormonal imbalance, and increased complications and comorbidities affecting fertility, pregnancy and menopause. Now that we have effective treatment why not use it for all?	
Chairpersons	**Joop Laven**, *Netherlands* **Zion Ben Rafael**, *Israel*	
16:00-16:15	Should we counsel patients to lose weight before pregnancy? What are the risks of obesity during pregnancy and labor **Yariv Yogev**, *Israel*	
16:15-16:20	Discussion	
16:20-16:35	Personalized obesity care: Translating new insights into practical treatment strategies, including pharmacotherapy **Elisabeth van Rossum**, *Netherlands (virtual)*	
16:35-16:40	Discussion	
16:40-16:55	GLP-1 medications before fertility treatment: Game changer or costly delay? **Vasiliki A. Moragianni**, *USA*	
16:55-17:00	Discussion	

17:00-18:30	WHAT IS NEW IN OUR FIELD?	HALL D
Capsule	In vitro gene editing was performed successful, but also illegally. Techniques that can cure a baby or embryos from lethal disease are probably welcome but the road to abuse remains widely open. Also, slowing the ovarian clock is an achievable goal?	
Chairpersons	**Sebastiaan Mastenbroek**, *Netherlands* **Catherine Racowsky**, *France*	
17:00-17:15	Futuristic gene editing for polygenic diseases **Shai Carmi**, *Israel*	
17:15-17:20	Discussion	
17:20-17:40	Slowing the ovarian clock: mTOR inhibition and the future of menopause **Zev Williams**, *USA*	
17:40-17:45	Discussion	
17:45-18:05	Judging follicle/oocyte maturity only by follicular ultrasound phenotype **Norbert Gleicher**, *USA*	
18:05-18:10	Discussion	
18:10-18:25	Finding the unfindable: AI-based rare sperm recovery and the redefinition of Azoospermia **Zev Williams**, *USA*	
18:25-18:30	Discussion	

18:30-19:30	OPENING SESSION	HALL D
Chairpersons	**Zion Ben Rafael**, *Israel* **Bart Fauser**, *Netherlands* **Rita Vassena**, *Spain*	
18:30-18:35	Introduction **Rita Vassena**, *Spain*	
18:35-19:20	*Keynote lecture in honor of Nobel Prize Laureate Robert G. Edwards* How oocyte vitrification has impacted ART: History, efficiency, and utilization nowadays **Ana Cobo**, *Spain*	
19:20-19:30	Young Scientist Best Abstract Award Presented by **Rene Frydman**, *France* and **Zion Ben Rafael**, *Israel*	
19:30-20:30	*Networking Reception in the exhibition area*	

Hall B

14:30-17:30	INDUSTRY SUPPORTED COURSE *See page 48*	HALL B

Hall C

09:00-14:00	PRACTICAL WORKSHOP OF INTRAPARTUM ULTRASOUND **Pre-registration required*	HALL C
Background	Intrapartum emergencies require prompt and efficient intervention by labor ward multiprofessional team. Ultrasound has been recently suggested as a valuable and objective tool which may assist the clinician in the diagnosis and the management of the labor complications and lead eventually to an improved outcome. The main aim of this course is to present the role of ultrasound in the management of abnormal labor providing the labor ward team with all the basic theoretical and practical knowledge which are complimentary to the clinical skills and may optimise the final outcome. This course is performed with the use of a dedicated mannequin which has been developed for the sonographic training in transperineal ultrasound.	
Course facilitators	**Giuseppe Rizzo**, *Italy* **Ilenia Mappa**, *Italy* **Valentina Tsibizova**, *Italy*	
09:00-09:30	Welcome	
09:30-10:00	Ultrasound in labor: Why and how? **Giuseppe Rizzo**, *Italy*	
10:00-10:30	Ultrasonographic diagnosis of labor arrest **Ilenia Mappa**, *Italy*	
10:30-11:00	US and operative vaginal delivery **Giuseppe Rizzo**, *Italy*	
11:00-11:30	*Coffee Break*	
11:30-12:00	The role of simulators in obstetrical ultrasound **Valentina Tsibizova**, *Italy*	
12:00-13:30	Hands-on simulation **LaborSIM-OpusLab** with the mannequin Supervised by the faculty	
13:30-14:00	Closing remarks	

Friday, November 13, 2026

Hall A - ART/IVF/Infertility

08:30-10:00	ARTIFICIAL INTELLIGENCE (AI)	HALL A
Capsule	Could artificial intelligence take over aspects of clinical management in ART?	
Chairpersons	**Frank Broekmans**, *Netherlands* **Efstratios Kolibianakis**, *Greece*	
08:30-09:00	Debate: **Any place for AI in ovulation induction?**	
08:30	Yes: **Konstantinos Dafopoulos**, *Greece*	
08:40	No: **Charalampos Siristatidis**, *Greece*	
08:50	Discussion	
09:00-09:15	New developments in the use of AI for ovarian stimulation **Vasiliki A. Moragianni**, *USA*	
09:15-09:20	Discussion	
09:20-09:35	Day 3 compared to day 5 **Raoul Orvieto**, *Israel*	
09:35-09:40	Discussion	
09:40-09:55	Deep learning versus manual morphology-based embryo selection in IVF: Results of the largest published RCT **Christos Venetis**, *Greece*	
09:55-10:00	Discussion	
10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*	

10:30-12:00	SURPRISE ME WITH..... UNEXPECTED SOLUTIONS...	HALL A
Capsule	Hot controversial clinical issues.	
Chairpersons	**Jacques Donnez**, *Belgium* **Paul Pirtea**, *France*	
10:30-10:45	The surprising results of the optimal follicular size before trigger: What AI reveals? **Simon Hanassab**, *UK*	
10:45-10:50	Discussion	
10:50-11:20	Debate: **Stem cells or surgery for Asherman Syndrome?**	
10:50	Operation, even in extreme cases is the solution - what are the limits?: **Ettore Cicinelli**, *Italy*	
11:00	Stem cells for endometrial regeneration: **Xavier Santamaria**, *Spain*	
11:10	Discussion	
11:20-11:35	Double trigger compared to IVM **Raoul Orvieto**, *Israel*	
11:35-11:40	Discussion	
11:40-11:55	Istmocele: Reasons and treatment **Ettore Cicinelli**, *Italy*	
11:55-12:00	Discussion	
12:00-12:05	*Change of session*	

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	PCOS is the most common endocrinopathy that affect all phases of women's life.	
Chairpersons	**Bart Fauser**, *Netherlands* **Joop Laven**, *Netherlands*	
12:05-12:25	PCOS in OBGYN (overview of PCO in reproductive life, menopause, pregnancy etc) **Terhi Piltonen**, *Finland*	
12:25-12:30	Discussion	
12:30-12:35	*Change of session*	

12:35-13:35	INDUSTRY SUPPORTED SESSION *See page 51*	HALL B

12:35-13:05	INDUSTRY SUPPORTED SESSION *See page 51*	HALL C

13:35-14:30	*Lunch break, visit the exhibition and e-poster viewing*

14:30-15:30	IMPLANTATION FAILURE	HALL A
Capsule	RIF: Aneuploidy is the main reason, while all other reasons are infrequent and correctable.	
Chairpersons	**Zion Ben Rafael**, *Israel* **Edgardo Somigliana**, *Italy*	
14:30-14:40	Ethnic disparities in IVF success, implications to treatment personalization **Simon Hanassab**, *UK*	
14:40-14:45	Discussion	
14:45-15:15	Debate: **What is the origin of implantation failure?**	
14:45	Euploidy is crucial and is age-dependent: **Paul Pirtea**, *France*	
14:55	Euploidy is not enough for implantation: **Antonis Makrigiannakis**, *Greece*	
15:05	Discussion	
15:15-15:25	Immunological factor - Endometrial profiling and LBR (RCT) **Efstratios Kolibianakis**, *Greece*	
15:25-15:30	Discussion	

15:30-15:35	*Change of session*

15:35-17:00	SIMPLE LESS EXPENSIVE IVF?	HALL A
Capsule	Should we adopt more simple, affordable IVF and prevent expensive, additional unproven add-ons?	
Chairpersons	**Basil Tarlatzis**, *Greece* **Konstantinos Zikopoulos**, *Greece*	
15:35-15:50	Modern IVF settings: Is the cost rising while the chances are falling? **Norbert Gleicher**, *USA*	
15:50-15:55	Discussion	
15:55-16:10	Low-resource setting, high IVF results: From scientific validation to global reproductive justice **Willem Ombelet**, *Belgium*	
16:10-16:15	Discussion	
16:15-16:35	After how many IVF failures should we adopt add-ons? **Edgardo Somigliana**, *Italy*	
16:35-16:40	Discussion	
16:40-16:55	Progestin-based ovarian stimulation vs GnRH analogues **Paul Pirtea**, *France*	
16:55-17:00	Discussion	

17:00-17:20	*Coffee break, visit the exhibition and e-poster viewing*

17:20-18:30	MANAGEMENT OF UTERINE FIBROIDS	HALL A
Capsule	Fibroids that distort the uterine cavity are likely to affect fertility however the effect of non-cavity distorting intramural fibroids on fertility is still debated. Does their presence lower the chance of achieving a live birth?	
Chairpersons	**Ettore Cicinelli**, *Italy* **George L. Adonakis**, *Greece*	
17:20-17:40	Debate: **Intramural fibroids should be enucleated before IVF**	
17:20	Yes: **Nikolaos Vlachos**, *Greece*	
17:25	No: **Antonis Makrigiannakis**, *Greece*	
17:30	Discussion	
17:40-17:55	Hysteroscopic management of submucous fibroids: Techniques and limitations **Grigoris F. Grimbizis**, *Greece*	
17:55-18:10	Which fibroids should be removed before in vitro fertilization? **Angelos Daniilidis**, *Greece*	
18:10-18:25	Endometrial receptivity and reproductive outcomes in adenomyosis, fibroids and endometriosis: Interim insights from the REAdME study **Michal Mára**, *Czech Republic*	
18:25-18:30	Discussion	

Friday, November 13, 2026

Hall B - Embryology

08:30-10:00	AI AND AUTOMATION IN IVF LABORATORY	HALL B
Capsule	A recent RCT by Illingworth et al et al (Nature Medicine 2024) was unable to demonstrate non-inferiority of a deep learning algorithm compared with standard morphology. Although no harm in using AI selection was proven, AI -based solutions need to demonstrate improvement in time, quality, and safety in IVF laboratory procedures, without compromising clinical outcomes, while reducing cost, before widespread adoption.	
Chairpersons	**Miguel Gallardo**, *Portugal* **Rita Vassena**, *Spain*	
08:30-09:00	Debate: **Does AI improve embryo selection in IVF**	
08:30	Pro: AI can improve embryo selection: **Giovanni Coticchio**, *Italy*	
08:40	Con: RCTs are lacking and without clear proofs, it should not be adopted: **Alessandro Bartolacci**, *Italy*	
08:50	Discussion	
09:00-09:25	AI in sperm selection: Difficult cases and proxy molecular markers **Ioannis Sfontouris**, *Greece*	
09:25-09:30	Discussion	
09:30-09:55	Automation in lab work in IVF - how far did we get? Do we still need an embryologist? **Laura Rienzi**, *Italy*	
09:55-10:00	Discussion	
10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*	

10:30-12:00	VITRIFICATION	HALL B
Capsule	Shorter vitrification and warming protocols are becoming more common for embryos, while still lagging somewhat behind oocytes. New approaches are being considered that challenge our understanding of cryobiology, and new media are being developed to improve results.	
Chairpersons	**Helen Picton**, *UK* **Laura Rienzi**, *Italy*	
10:30-10:55	Shorter protocols of vitrification and warming: The science behind the models **Miguel Gallardo**, *Portugal*	
10:55-11:00	Discussion	
11:00-11:25	Simplified vitrification and warming: Clinical validation and implementation in practice **Ana Cobo**, *Spain*	
11:25-11:30	Discussion	
11:30-11:55	Is direct warming of embryos the new revolution? **Rita Vassena**, *Spain*	
11:55-12:00	Discussion	
12:00-12:05	*Change of session*	

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	PCOS is the most common endocrinopathy that affect all phases of women's life.	
Chairpersons	**Bart Fauser**, *Netherlands* **Joop Laven**, *Netherlands*	
12:05-12:25	PCOS in OBGYN (overview of PCO in reproductive life, menopause, pregnancy etc) **Terhi Piltonen**, *Finland*	
12:25-12:30	Discussion	
12:30-12:35	*Change of session*	

12:35-13:35	INDUSTRY SUPPORTED SESSION *See page 51*	HALL B

12:35-13:05	INDUSTRY SUPPORTED SESSION *See page 51*	HALL C

13:35-14:30	*Lunch break, visit the exhibition and e-poster viewing*

14:30-15:30	IVM AND IMMATURE OOCYTES	HALL B
Capsule	In vitro maturation has by now proven safe and effective on a per-oocyte basis, although clinical adoption seems to be lagging. The efficiency of controlled ovarian hyperstimulation however, clashes with the comfort of patients and the increase in cost of the procedure (drugs, anesthetic services, recovery time, etc..). Is there a place for true IVM in standard clinical practice?	
Chairpersons	**Alessandro Bartolacci**, *Italy* **Ioannis Sfontouris**, *Greece*	
14:30-15:00	Debate: **This house believes that "true" IVM should be part of the toolkit of every clinic**	
14:30	Pro: IVM should be indicated for certain patients: **Leonidas Zepeiridis**, *Greece*	
14:40	Con: IVM cannot rival OHSs in cumulative efficiency and should not be proposed: **George Lainas**, *Greece*	
14:50	Discussion	
15:00-15:25	In vitro derived oocytes: From research to clinical application **Helen Picton**, *UK*	
15:25-15:30	Discussion	

15:30-15:35	*Change of session*

15:35-17:00	QUO VADIS PGT-A?	HALL B
Capsule	In spite of the clear results from 2 non-selection studies, some questions still persist in the PGT-A world. We are debating advances and limitations of this technology, and look at future developments in the field. PGT-P for polygenic is a controversial technique that uses scores to estimate embryos risk to develop adults diseases like diabetes to select those with lower risk.	
Chairpersons	**Helen Picton**, *UK* **Giovanni Coticchio**, *Italy*	
15:35-16:05	Debate: **Should we report mosaicism in PGT-A?**	
15:35	Yes, we should: **Darren Griffin**, *UK*	
15:45	No, we should not: **Alessandro Bartolacci**, *Italy*	
15:55	Discussion	
16:05-16:25	When PGT-M is needed, should we test also for aneuploidy **Sebastiaan Mastenbroek**, *Netherlands*	
16:25-16:30	Discussion	
16:30-16:55	PGT-P: The future of PGT or an unethical approach? **Shai Carmi**, *Israel*	
16:55-17:00	Discussion	

17:00-17:20	*Coffee break, visit the exhibition and e-poster viewing*

17:20-18:30	AN EMBRYO IS AN EMBRYO IS AN EMBRYO?	HALL B
Capsule	From choosing the best day to transfer to the developmental potential of nonconventional fertilized oocytes, this session will challenge some long held beliefs and present new evidence.	
Chairpersons	**Rita Vassena**, *Spain* **Mina Popovic**, *Spain*	
17:20-17:40	1PN, 2.1PN, 3PN: when to rescue and when to discard? **Laura Rienzi**, *Italy*	
17:40-18:00	Are embryos better nurtured in utero or in vitro? A comparison of day 3 vs day 5 transfer, including a cost-effectiveness perspective **Giovanni Coticchio**, *Italy*	
18:00-18:20	How to care for the embryo in challenging laboratory settings **Catherine Racowsky**, *France*	
18:20-18:30	Q&A	

Friday, November 13, 2026

Hall C - Gynecology

08:30-10:00	SURGERY IN ENDOMETRIOSIS AND ADENOMYOSIS	HALL C
Capsule	Endometriosis and adenomyosis - when to treat, when to operate and when not.	
Chairpersons	**Theodoros Theodoridis**, *Greece* **Athanasios Protopapas**, *Greece*	
08:30-08:50	Decoding the mechanisms of endometriosis-related infertility **Jacques Donnez**, *Belgium*	
08:50-08:55	Discussion	
08:55-09:10	Endometriosis and infertility: When to operate and how? **Grigoris F. Grimbizis**, *Greece*	
09:10-09:15	Discussion	
09:15-09:25	Adenomyosis and IVF outcomes **Eileen Manalo**, *Philippines*	
09:25-09:30	Discussion	
09:30-09:45	Adenomyosis should be operated on before pregnancy **George Pistofidis**, *Greece*	
09:45-10:00	Adenomyosis: From organoid model to medical therapy **Marie-Madeleine Dolmans**, *Belgium*	

10:00-10:30 *Coffee break, visit the exhibition and e-poster viewing*

ALL ABOUT BACK TO PRESCRIBING HRT

After 20 years, the WHO has removed the black box warning from HRT. The following session will address this topic.

10:30-12:00	OPTIMISING LONG TERM MENOPAUSE HEALTH	HALL C
Capsule	Focusing on strategies for optimising long-term health and quality of life during menopause.	
Chairpersons	**Alessandra Graziottin**, *Italy* **Nick Panay**, *UK*	
10:30-10:45	Menopause and work ability - gaps and solutions **Terhi Piltonen**, *Finland*	
10:45-10:50	Discussion	
10:50-11:05	Optimising quality of life after gynecological cancer **Alessandra Graziottin**, *Italy*	
11:05-11:10	Discussion	
11:10-11:40 11:10 11:20 11:30	Debate: **Should HRT be prescribed in asymptomatic natural menopause?** For: **Mark Brincat**, *Malta* Against: **Angelica Hirschberg**, *Sweden* Discussion	
11:40-11:55	Laser for the GSM in breast cancer survivors **Zdenko Vižintin**, *Slovenia*	
11:55-12:00	Discussion	

12:00-12:05 *Change of session*

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	PCOS is the most common endocrinopathy that affect all phases of women's life.	
Chairpersons	**Bart Fauser**, *Netherlands* **Joop Laven**, *Netherlands*	
12:05-12:25	PCOS in OBGYN (overview of PCO in reproductive life, menopause, pregnancy etc) **Terhi Piltonen**, *Finland*	
12:25-12:30	Discussion	

12:30-12:35 *Change of session*

12:35-13:35	INDUSTRY SUPPORTED SESSION *See page 51*	HALL B

12:35-13:05	INDUSTRY SUPPORTED SESSION *See page 51*	HALL C

13:35-14:30	*Lunch break, visit the exhibition and e-poster viewing*

14:30-15:30	**MENOPAUSE SYMPTOMS - GENESIS, IMPLICATIONS AND MANAGEMENT**	**HALL C**
Capsule	Exploring the genetic origins, neurological mechanisms, and practical clinical management of menopausal symptoms like vasomotor symptoms and vulvovaginal atrophy.	
Chairpersons	**Alessandra Graziottin**, *Italy* **George L. Adonakis**, *Greece*	
14:30-14:45	Genetic determinism of menopause: SIG genetics at IMS **Micheline Misrahi**, *France*	
14:45-14:50	Discussion	
14:50-15:05	VMS, peripheral or central nervous system? **Mark Brincat**, *Malta*	
15:05-15:10	Discussion	
15:10-15:25	Practical management strategies of Vasomotor Symptoms (VMS) and Vulvovaginal Atrophy (VVA) in the menopausal transition **Dimitrios Goulis**, *Greece*	
15:25-15:30	Discussion	

15:30-15:35	*Change of session*

15:35-17:00	**HORMONE DEPENDENT DISORDERS IN PRE AND PERI MENOPAUSAL WOMEN**	**HALL C**
Capsule	Addresses the management, long-term cardiometabolic impacts, and pregnancy implications of hormone-dependent disorders like PCOS/PMOS (Polyendocrine Metabolic Ovarian Syndrome) and premenstrual syndromes, and initiating HRT during pre- and perimenopause.	
Chairpersons	**Basil Tarlatzis**, *Greece* **Dimitrios Goulis**, *Greece*	
15:35-16:05 15:35 15:45 15:55	Debate: **Should HRT be started in pre/peri menopausal women?** For: **Nick Panay**, *UK* Against: **Angelica Hirschberg**, *Sweden* Discussion	
16:05-16:15	Recurrent pregnancy loss in Polycystic Ovary Syndrome: Underlying genetic and metabolic contributors **Elene Asanidze**, *Georgia*	
16:15-16:20	Discussion	
16:20-16:35	Managing severe premenstrual disorders especially in perimenopause **Nick Panay**, *UK*	
16:35-16:40	Discussion	
16:40-16:55	PCOS/PMOS - long-term cardiometabolic implications **Bart Fauser**, *Netherlands*	
16:55-17:00	Discussion	

17:00-17:20	*Coffee break, visit the exhibition and e-poster viewing*

17:20-18:30	**POI AND EARLY MENOPAUSE**	**HALL C**
Chairpersons	**Nick Panay**, *UK* **Micheline Misrahi**, *France*	
17:20-17:35	Premature ovarian aging: Genetic causes, fertility prognosis, and health consequences **Micheline Misrahi**, *France*	
17:35-17:50	Ovarian function ceases way before other organs start to fail; lessons learned from DNA testing? **Joop Laven**, *Netherlands*	
17:50-18:05	Is early menopause a different entity from POI? **Panagiotis Anagnostis**, *Greece*	
18:05-18:30 18:05 18:10 18:15	Debate: **Routine use of PRP & stem cells in POI?** For: **Pietro Molinaro**, *Italy* Against: **Basil Tarlatzis**, *Greece* Discussion	

Friday, November 13, 2026

Hall D - Fetomaternal Medicine

08:30-10:00	CONTROVERSIES IN TWINS	HALL D
Chairpersons	**Asma Khalil**, *UK* **Nir Melamed**, *Canada*	
08:30-08:45	Should we use twin-specific growth charts or singleton charts to diagnose growth restriction? **Asma Khalil**, *UK*	
08:45-09:00	Should progesterone and steroids be used in twins with a short cervix? **Nir Melamed**, *Canada*	
09:00-09:30	Debate: **Does cerclage help or harm in twin pregnancies with cervical shortening?**	
09:00	Pro: **Andrew Shennan**, *UK*	
09:10	Con: **Liran Hiersch**, *Israel*	
09:20	Discussion	
09:30-10:00	Debate: **Should we suggest fetal reduction in Bichorionic/Biamniotic (BC/BA) twins**	
09:30	Pro: **Yariv Yogev**, *Israel*	
09:40	Con: **Eyal Sheiner**, *Israel*	
09:50	Discussion	

10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*

10:30-12:00	IUGR - INTRAUTERINE GROWTH RESTRICTION	HALL D
Chairpersons	**Apostolos Athanasiadis**, *Greece* **Nir Melamed**, *Canada*	
10:30-11:00	Debate: **Estimated Fetal Weight (EFW) 3rd percentile, normal doppler indices. When to deliver 36? 37? 38? Later?**	
10:30	Pro: **Nir Melamed**, *Canada*	
10:40	Con: **Asma Khalil**, *UK*	
10:50	Discussion	
11:00-11:30	Debate: **Can we prevent the recurrence of fetal growth restriction (FGR)? Is there a role for aspirin? Low Molecular Weight Heparin (LMWH)? Pravastatin?**	
11:00	Pro: **Liran Hiersch**, *Israel*	
11:10	Con: **Amir Aviram**, *Canada*	
11:20	Discussion	
11:30-11:45	Testing the placenta in pregnancies with FGR - black box or crystal ball? What to ask the pathologist? How it guides for future treatment? **Anastasia Konstantinidou**, *Greece*	
11:45-12:00	Nutrition, supplementation and toxic nutrients in pregnancy: How to integrate our knowledge for better pregnancy outcome? **Gian Carlo Di Renzo**, *Italy*	

12:00-12:05	*Change of session*

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	PCOS is the most common endocrinopathy that affect all phases of women's life.	
Chairpersons	**Bart Fauser**, *Netherlands* **Joop Laven**, *Netherlands*	
12:05-12:25	PCOS in OBGYN (overview of PCO in reproductive life, menopause, pregnancy etc) **Terhi Piltonen**, *Finland*	
12:25-12:30	Discussion	

12:30-12:35	*Change of session*

12:35-13:35	INDUSTRY SUPPORTED SESSION *See page 51*	HALL B

12:35-13:05	INDUSTRY SUPPORTED SESSION *See page 51*	HALL C

13:35-14:30	*Lunch break, visit the exhibition and e-poster viewing*

14:30-15:30	LARGE FOR GESTATIONAL AGE (LGA) - BEING LARGE IS NOT SO SIMPLE	HALL D
Chairpersons	**Asma Khalil**, *UK* **Howard Berger**, *Canada* **Aggeliki Gerede**, *Greece*	
14:30-14:45	Can we accurately predict macrosomia? The use of AI **Giuseppe Rizzo**, *Italy*	
14:45-15:05	Debate: **What is the optimal timing and mode of delivery in cases of suspected LGA/macrosomia? Should we offer induction of labor (IOL)?**	
14:45	Pro: **Emmanuel Attali**, *Israel*	
14:50	Con: **Asma Khalil**, *UK*	
14:55	Discussion	
15:05-15:30	Debate: **Should we perform late third trimester oral glucose tolerance test (OGTT) in cases of suspected LGA**	
15:05	Pro: **Yariv Yogev**, *Israel*	
15:10	Con: **Howard Berger**, *Canada*	
15:15	Discussion	

15:30-15:35	*Change of session*

15:35-17:00	CONTROVERSIES AROUND PROM AND PPROM (PRETERM AND TERM PRELABOR RUPTURE OF MEMBRANES)	HALL D
Chairpersons	**Liran Hiersch**, *Israel* **Apostolos Mamopoulos**, *Greece*	
15:35-16:00	Debate: **Should all women with PPROM receive antenatal corticosteroids at presentation?**	
15:35	Pro: **Nir Melamed**, *Canada*	
15:40	Con: **Gerard Visser**, *Netherlands*	
15:45	Discussion	
16:00-16:20	Debate: **PPROM with cerclage: To remove or not to remove? If yes when? After completion of corticosteroids**	
16:00	Pro: **Yariv Yogev**, *Israel*	
16:05	Con: **Amir Aviram**, *Canada*	
16:10	Discussion	
16:20-16:40	Debate: **Should tocolysis be used in PPROM to allow steroid administration?**	
16:20	Pro: **George Daskalakis**, *Greece*	
16:25	Con: **Ioannis Tsakiridis**, *Greece*	
16:30	Discussion	
16:40-17:00	Debate: **Immediate delivery vs expectant management in PROM between 34 and 37 weeks**	
16:40	Pro: **Apostolos Athanasiadis**, *Greece*	
16:45	Con: **Apostolos Mamopoulos**, *Greece*	
16:50	Discussion	

17:00-17:20	*Coffee break, visit the exhibition and e-poster viewing*

17:20-18:35	FROM PREDICTION TO PREVENTION IN OBSTETRICS	HALL D
Chairpersons	**Asma Khalil**, *UK* **Apostolos Athanasiadis**, *Greece*	
17:20-17:40	Debate: **Should we provide aspirin for all?**	
17:20	Pro: **Amir Aviram**, *Canada*	
17:25	Con: **Themistoklis Dagklis**, *Greece*	
17:30	Discussion	
17:40-18:00	Debate: **Metformin for the obese gravida at early pregnancy?**	
17:40	Pro: **Emmanuel Attali**, *Israel*	
17:45	Con: **Dimitrios Goulis**, *Greece*	
17:50	Discussion	
18:00-18:20	Debate: **Tubectomy at cesarean section for risk reduction of ovarian cancer?**	
18:00	Pro: **Rinat Gabbay-Benziv**, *Israel*	
18:05	Con: **Nikolaos Thomakos**, *Greece*	
18:10	Discussion	
18:20-18:35	Preparing OB practice for a warmer world **Tamar Wainstock**, *Israel*	

Saturday, November 14, 2026

Hall A - ART/IVF/Infertility

08:30-10:00	PMOS - THE NEW PCOS	HALL A
Capsule	It is important to get the new name promoted and implemented.	
Chairpersons	**Bart Fauser**, *Netherlands* **Basil Tarlatzis**, *Greece*	
08:30-08:55	Name change: Patients perspective **Rachel Morman**, *UK*	
08:55-09:00	Discussion	
09:00-09:25	Name change: The health care providers perspective **Terhi Piltonen**, *Finland*	
09:25-09:30	Discussion	
09:30-09:55	Polyendocrine Metabolic Ovarian Syndrome (PMOS): The new Polycystic Ovarian Syndrome (PCOS): Dissemination and next steps **Joop Laven**, *Netherlands*	
09:55-10:00	Discussion	

10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*

10:30-12:00	PGT-A	HALL A
Capsule	An ASRM statement, grounded in over 30 years of experience and multiple randomized controlled trials demonstrating no clinical improvement in IVF outcomes with the use of PGT-A, nevertheless PGT-A sharply increase in utilization.	
Chairpersons	**Norbert Gleicher**, *USA* **Laura Rienzi**, *Italy*	
10:30-10:45	The cost-effectiveness of re-biopsy and post-cryopreservation biopsy in PGT-A cycles **Alessandro Bartolacci**, *Italy*	
10:45-10:50	Discussion	
10:50-11:20 10:50 11:00 11:10	Debate: **Claims of lower miscarriage rate and speed up of the time to pregnancy with PGT-A** Pro: This justifies the cost and utilization of PGT-A!: **Christos Venetis**, *Greece* Con: Only if we don't trust the RCTs showing no effect of PGT-A? **Mina Popovic**, *Spain* Discussion	
11:20-11:35	Invasive vs noninvasive PGT-A - from cell DNA to cell - free DNA **Dimitris Loutradis**, *Greece*	
11:35-11:40	Discussion	
11:40-11:55	Is there a potential legal danger for physicians to be sued for performing PGT-A? **Norbert Gleicher**, *USA*	
11:55-12:00	Discussion	

12:00-12:05	*Change of session*

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	Epigenetics and reprogramming research in infertility and in utero development focuses on how DNA methylation, histone modification, and RNA interact during gametogenesis, early embryogenesis and placentation, disruption of which causes infertility and pregnancy complications.	
Chairpersons	**Rene Frydman**, *France* **Mina Popovic**, *Spain*	
12:05-12:25	Epigenetics and reprogramming **David Monk**, *UK*	
12:25-12:30	Discussion	

12:30-13:30	*Lunch break, visit the exhibition and e-poster viewing*

13:30-15:00	Q & A	HALL A
Capsule	Experts' views on controversial and unsolved clinical and laboratory questions.	
Chairpersons	**Zion Ben Rafael**, *Israel* **Bart Fauser**, *Netherlands*	
Discussants	**Laura Rienzi**, *Italy* **Paul Pirtea**, *France* **Basil Tarlatzis**, *Greece*	
	Questions to the panel Embryology Sperm separation and selection techniques: Do any really improve embryo quality and outcomes? Should time-lapse imaging be implemented for all ART cycles? Should genetic carrier screening be proposed systematically before ART? Is non-invasive PGT-A still a promising approach? Does the number of laser pulses impact embryo biopsy Clinical aspects of IVF Rescue IVM: Is it clinically relevant Could artificial intelligence take over aspects of clinical management in ART? Does recurrent implantation failure still exist as a distinct entity? How can we decrease the cost of IVF, is natural IVF still useful in current practice? Is preeclampsia truly more frequent after artificial embryo transfer cycles? Mild ovarian stimulation for patients with diminished ovarian reserve: myth or reality?	

15:00-16:30	OVARIAN STIMULATION	HALL A
Capsule	Basic issues in ovulation stimulation are still not resolved.	
Chairpersons	**Zion Ben Rafael**, *Israel* **Konstantinos Dafopoulos**, *Greece*	
15:00-15:30	Personalization of ovarian stimulation, do we need to base it on age and markers of ORT **Frank Broekmans**, *Netherlands*	
15:30-16:00	Debate: **How important is the choice of gonadotropins and monitoring during stimulation?**	
15:30	It is important: **Evangelos Makrakis**, *Greece*	
15:40	No better results were proven: **Ioannis E. Messinis**, *Greece*	
15:50	Discussion	
16:00-16:30	Debate: **Mild ovarian stimulation for patients with diminished ovarian reserve (DOR): Myth or reality?**	
16:00	Higher doses will increase oocyte yield: **Frank Broekmans**, *Netherlands*	
16:10	Mild stimulation is the right way: **Paul Pirtea**, *France*	
16:20	Discussion	

Hall C - Gynecology

08:30-10:00	NOVEL HORMONAL AND NON-HORMONAL APPROACHES IN MENOPAUSE	HALL C
Capsule	Prescribing HRT is back what are the new therapies in the toolbox.	
Chairpersons	**Johannes Ott**, *Austria* **Eileen Manalo**, *Philippines*	
08:30-08:45	Estetrol: Role in MHT/HRT? **Johannes Ott**, *Austria*	
08:45-08:50	Discussion	
08:50-09:05	Testosterone vs DHEA - which is the best option for androgen replacement? **Andrea Genazzani**, *Italy*	
09:05-09:10	Discussion	
09:10-09:25	Neurokinin targeted therapies - genuine alternatives to MHT? **Nick Panay**, *UK*	
09:25-09:30	Discussion	
09:30-10:00	Debate: **Should all women in menopause be offered androgens?**	
09:30	For: **Andrea Genazzani**, *Italy*	
09:40	Against: **Mark Brincat**, *Malta (virtual)*	
09:50	Discussion	

10:00-10:30 *Coffee break, visit the exhibition and e-poster viewing*

10:30-12:00	INFERTILITY AND SURGERY	HALL C
Capsule	Exploring surgical advancements and alternatives in fertility care, highlighting the Balkan initiative for uterine transplantation, fertility-sparing procedures, prevention of endometriosis recurrence, and microwave ablation for uterine diseases.	
Chairpersons	**Athanasios Protopapas**, *Greece* **Grigoris F. Grimbizis**, *Greece*	
10:30-10:50	Global overview of uterine transplantation and the Balkan initiative **Elias Tsakos**, *Greece*	
10:50-10:55	Discussion	
10:55-11:15	Fertility sparing surgery in gynecology **Grigoris F. Grimbizis**, *Greece*	
11:15-11:20	Discussion	
11:20-11:35	Endometriosis recurrence after surgery: Why it happens and how to prevent it **Theodoros Theodoridis**, *Greece*	
11:35-11:40	Discussion	
11:40-11:55	Microwave ablation for uterine diseases **Xiaoming Gong**, *China*	
11:55-12:00	Discussion	

12:00-12:05 *Change of session*

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	Epigenetics and reprogramming research in infertility and in utero development focuses on how DNA methylation, histone modification, and RNA interact during gametogenesis, early embryogenesis and placentation, disruption of which causes infertility and pregnancy complications.	
Chairpersons	**Rene Frydman**, *France* **Mina Popovic**, *Spain*	
12:05-12:25	Epigenetics and reprogramming **David Monk**, *UK*	
12:25-12:30	Discussion	

12:30-13:30 *Lunch break, visit the exhibition and e-poster viewing*

13:30-15:00	MENOPAUSE AND ENDOMETRIOSIS	HALL C
Capsule	Endometriosis, an estrogen dependent disease, develops mostly in women of reproductive age and usually regresses after menopause or ovariectomy. Postmenopausal women with endometriosis have the same chances of having menopausal symptoms, particularly hot flashes and night sweats as women without endometriosis. Treatments depend on symptom severity and medical history. However, postmenopausal estrogen use may exacerbate endometriosis.	
Chairpersons	**Athanasios Protopapas**, *Greece* **Leonidas Zepeiridis**, *Greece*	
13:30-14:00	Debate: **Hormone therapy in menopausal women with endometriosis**	
13:30	Yes: **George L. Adonakis**, *Greece*	
13:40	No: **Sophia Kalantaridou**, *Greece*	
13:50	Discussion	
14:00-14:15	Management of osteoporosis in women with a history of endometriosis **Panagiotis Anagnostis**, *Greece*	
14:15-14:20	Discussion	
14:20-14:35	Natural progesterone versus artificial progestogens **Johannes Ott**, *Austria*	
14:35-14:40	Discussion	
14:40-14:55	Metabolomics as a tool for early detection of ectopic pregnancy **Jose Horcajadas**, *Spain*	
14:55-15:00	Discussion	

15:00-16:30	IMAGING IN GYNECOLOGY	HALL C
Capsule	The debate is still ongoing - would MRI replace ultrasound and histological evaluation.	
Chairpersons	**Matthaios Fraidakis**, *Greece* **Eileen Manalo**, *Philippines*	
15:00-15:25	Continuous reproductive identity: A new information architecture for reproductive medicine **Jacques Kadoch**,, *Canada*	
15:25-15:30	Discussion	
15:30-15:55	Diagnosis of adenomyosis: Is ultrasound accurate enough to replace histology? **Dimitrios Mavrelos**, *UK*	
15:55-16:00	Discussion	
16:00-16:25	Ovarian tumors: How accurate is the prediction of histology with imaging? **Ekaterini Domali**, *Greece*	
16:25-16:30	Discussion	

Saturday, November 14, 2026

Hall D - Fetomaternal Medicine

08:30-10:00	PRETERM DELIVERY	HALL D
Chairpersons	**Gian Carlo Di Renzo**, *Italy* **George Daskalakis**, *Greece*	
08:30-08:55	Debate: **Once cerclage always cerclage? Evidence for prior pregnancy**	
08:30	Pro: **Andrew Shennan**, *UK*	
08:35	Con: **Austin Ugwumadu**, *UK*	
08:40	Discussion	
08:55-09:20	Debate: **When to deliver in suspected chorioamnionitis during active labor? To perform immediate cesarean section?**	
08:55	Pro: **Austin Ugwumadu**, *UK*	
09:00	Con: **Howard Berger**, *Canada*	
09:05	Discussion	
09:20-09:35	Should prediction models and new biomarkers replace traditional risk factors in preterm birth screening? **Dilli Anumba**, *UK*	
09:35-10:00	Debate: **Should we administer progesterone after arrested preterm labor after 24 weeks of gestation**	
09:35	Pro: **Howard Berger**, *Canada*	
09:40	Con: **Ioannis Tsakiridis**, *Greece*	
09:45	Discussion	

10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*

10:30-12:00	CONTROVERSIAL ISSUES IN LABOR AND DELIVERY	HALL D
Chairpersons	**Apostolos Mamopoulos**, *Greece* **Jim Thornton**, *UK*	
10:30-11:00	Debate: **Induction of labor following a previous cesarean section**	
10:30	Pro: **Yariv Yogev**, *Israel*	
10:40	Con: **Jim Thornton**, *UK*	
10:50	Discussion	
11:00-11:30	Debate: **Delivery in the extremely premature newborn. Cesarean section for all?**	
11:00	Pro: **Austin Ugwumadu**, *UK*	
11:10	Con: **Howard Berger**, *Canada*	
11:20	Discussion	
11:30-12:00	Debate: **Different countries different medicine? In terms of cesarean section rate**	
11:30	Low CS rate: **Eyal Sheiner**, *Israel*	
11:40	High CS rate: **Asma Khalil**, *UK*	
11:50	Discussion	

12:00-12:05	*Change of session*

12:05-12:30	PLENARY SESSION	HALL A *Streamed to Hall D & E*
Capsule	Epigenetics and reprogramming research in infertility and in utero development focuses on how DNA methylation, histone modification, and RNA interact during gametogenesis, early embryogenesis and placentation, disruption of which causes infertility and pregnancy complications.	
Chairpersons	**Rene Frydman**, *France* **Mina Popovic**, *Spain*	
12:05-12:25	Epigenetics and reprogramming **David Monk**, *UK*	
12:25-12:30	Discussion	

12:30-13:30	*Lunch break, visit the exhibition and e-poster viewing*

13:30-15:00	DIABETES AND OBESITY	HALL D
Chairpersons	**Yariv Yogev**, *Israel* **Gerard Visser**, *Netherlands* **Aggeliki Gerede**, *Greece*	
13:30-13:50	How do you know that your patient is well controlled? **Yariv Yogev**, *Israel*	
13:50-14:25 13:50 14:00 14:10	Debate: **When to start pharmacological treatment? Should we use oral agents? Which?** Pro: **Gerard Visser**, *Netherlands* Con: **Rinat Gabbay-Benziv**, *Israel* Discussion	
14:25-14:55	GLP-1 medications for GDM **Rinat Gabbay-Benziv**, *Israel*	
14:55-15:00	Discussion	

15:00-16:30	PANEL EXPERTS CASE DISCUSSION - DAILY DILEMMAS IN MODERN OBSTETRICS	HALL D
Chairpersons	**Yariv Yogev**, *Israel* **Gerard Visser**, *Netherlands*	
Discussants	**Asma Khalil**, *UK* **Apostolos Athanasiadis**, *Greece* **Nir Melamed**, *Canada* **Gian Carlo Di Renzo**, *Italy*	
	Umbilical cord varix-IOL? What antenatal surveillance is recommended? 28 weeks of gestation, breech presentation in active labor. To give or not to give MgSo4? Corticosteroids? 3rd anatomy scan for all? When do you recommend cesarean section for suspected macrosomia? 4000? 4250? 4500? 5000? G1Po 39+2 weeks of gestation with normal pregnancy follow-up: Should we perform IOL by maternal request? Should we perform once weekly/bi-weekly fetal surveillance in well-controlled GDM? G1P0, 26 years old. Low risk pregnancy. Amniocentesis for all? NIPT? None? Should obese women be induced at 39 weeks?	

Oral Presentations
Thursday, November 12, 2026

13:00-14:30	**ORAL PRESENTATION SESSION 1:** **GYNECOLOGY**: GYNECOLOGY	**HALL E**
Chairpersons	**Mark Brincat**, *Malta* **Jessica Ybanez-Morano**, *USA*	
13:00-13:07	EARLY DIFFERENTIATED VULVAR INTRAEPITHELIAL NEOPLASIA WITH MICROINVASION IN A 46-YEAR-OLD IMMUNOSUPPRESSED WOMAN **Francisca Almeida**, *Portugal*	
13:07-13:14	SACROCOLPOPEXY REVISITED: A DECADE OF EXPERIENCE - DOES LAPAROSCOPY DELIVER THE SAME RESULTS WITH LESS MORBIDITY? **Maria Isabel Almeida**, *Portugal*	
13:14-13:21	CURRENT TRENDS AND CROSS-NATIONAL VARIATION IN LAPAROSCOPIC HYSTERECTOMY RATES IN EUROPE: A EUROSTAT - BASED ANALYSIS **Danielė Berulė**, *Lithuania*	
13:21-13:28	THE MEDIATING ROLE OF GENITAL SELF-IMAGE AND DYADIC ADJUSTMENT IN THE RELATIONSHIP BETWEEN MENOPAUSAL SYMPTOMS AND SEXUAL QUALITY OF LIFE AMONG POSTMENOPAUSAL WOMEN **Beyza Nur Bircan**, *Türkiye*	
13:28-13:35	NON-PUERPERAL UTERINE INVERSION SECONDARY TOPROLAPSED SUBMUCOUS MYOMA IN A PRIMIPAROUSUNDERWENT SUBTOTAL VAGINAL HYSTERECTOMY: A CASE REPORT **Froline Sheane Dalmacio**, *Philippines*	
13:35-13:42	REGRESSION OF ENDOMETRIAL EXPLANTS IN RATS TREATED WITH BEVACIZUMAB **Aikaterini Deliveliotou**, *Greece*	
13:42-13:49	THE EFFICACY OF DEPOT MEDROXYPROGESTERONE ACETATE FOR TREATMENT OF ADENOMYOSIS **Chawanlak Dencharoen**, *Thailand*	
13:49-13:56	OVARIAN LYMPHANGIOMA PRESENTING AS OVARIAN TORSION IN A REPRODUCTIVE-AGED WOMAN: THE FIRST LOCAL CASE REPORT IN THE PHILIPPINES **Roxanne Diana Figuerroa**, *Philippines*	
13:56-14:03	PHOTOTHERAPY FOR RECURRENT VULVOVAGINITIS: PROMISE OR UNCERTAINTY? A SYSTEMATIC REVIEW AND META-ANALYSIS **Rebecca Fonseca De Azevedo**, *Portugal*	
14:03-14:10	LONGSHORE DRIFT: FINDINGS FROM COMMUNITY LISTENING WORKSHOPS EXPLORING PELVIC PAIN AND ENDOMETRIOSIS IN WOMEN EXPERIENCING COASTAL DEPRIVATION IN SOUTH WEST ENGLAND **Chloe Gamlin**, *United Kingdom*	
14:10-14:17	EVALUATION OF SEXUAL FUNCTION AND QUALITY OF SEXUAL LIFE IN WOMEN WITH MYOCARDIAL INFARCTION **Ebru Gozuyesil**, *Türkiye*	
14:17-14:24	DOES UTERINE CAVITY WIDTH AND FUNDAL MYOMETRIAL THICKNESS DEPEND ON NUMBER OF DELIVERIES? **Zaklina Jurisic**, *Serbia*	

14:30-15:30	**ORAL PRESENTATION SESSION 2:** **FETOMATERNAL MEDICINE:** MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT	**HALL C**
Chairperson	**Andrew Shennan**, *UK*	
14:30-14:37	ESTIMATING THE IMPACT OF RAMADAN FASTING DURING PREGNANCY ON PRETERM BIRTH AND MATERNAL AND FETAL OUTCOMES: A COHORT STUDY **Amjad Alqelaiti**, *Saudi Arabia*	
14:37-14:44	THE PRENATAL DIAGNOSIS OF THE UMBILICAL CORD KNOT CHANGES DRAMATICALLY THE NEONATAL PROGNOSIS **Roxana Bohiltea**, *Romania*	
14:44-14:51	THE EXPECTED GESTATIONAL DECLINE IN CIRCULATING MAGNESIUM IS ABSENT IN PRE-ECLAMPSIA: FINDINGS FROM BLACK SOUTH AFRICAN WOMEN **Vino Dorsamy**, *South Africa*	
14:51-14:58	CERVICAL MATURITY PHENOTYPING IN PREGNANCY: FROM ELASTOGRAPHY TO A BIOCHEMICAL TEST **Vladislava Khalenko**, *Russia*	
14:58-15:05	PROGRAMMABLE BIRTH IN GESTATIONAL MELLITUS: MINIMIZING RISKS- IMPROVING MATERNAL AND PERINATAL OUTCOMES **Olga Lukanovskaia**, *Russia*	

15:05-15:12	HUMAN ERROR, SYSTEM VULNERABILITIES, AND RESILIENCE IN MATERNAL CRITICAL CARE: MULTIDISCIPLINARY ANALYSIS OF DIAGNOSTIC COMPLEXITY, COGNITIVE BIAS, MEDICATION SAFETY, COMMUNICATION AND SYSTEM FAILURES **Evangelia Michailidou**, *Cyprus*
15:12-15:19	MATERNAL SERUM URIC ACID TRAJECTORIES DURING PREGNANCY AND RISKS OF PRETERM BIRTH AND LOW BIRTH WEIGHT: A RETROSPECTIVE COHORT STUDY **Dawei Yang**, *China*
15:19-15:26	PREDICTING POSTPARTUM DEPRESSION: THE ROLE OF SOCIAL MEDIA ADDICTION AND SPOUSAL SUPPORT DURING PREGNANCY **Emine Yesilkaya Alver**, *Türkiye*

14:30-15:30	**ORAL PRESENTATION SESSION 3:** **ART/IVF/INFERTILITY:** FERTILITY PRESERVATION | REPRODUCTIVE GENETICS	**HALL E**
Chairpersons	**Micheline Misrahi**, *France* **Rami Wakim**, *UK*	
FERTILITY PRESERVATION		
14:30-14:37	RELATIONSHIP BETWEEN WOMEN'S CLIMATE CHANGE ANXIETY AND SOCIAL AND PSYCHOLOGICAL DETERMINANTS **Burcu Avcibay Vurgec**, *Türkiye*	
14:37-14:44	ANTI-MÜLLERIAN HORMONE RECEPTOR: WHERE DOES IT TRULY RESIDE? **Soraya Ladha**, *Belgium*	
14:44-14:51	SUOP-PC TECHNIQUE: TRANSITIONING FROM FROZEN TO FREE - A STANDARDISED LAPAROSCOPIC SURGICAL APPROACH FOR ADVANCED ENDOMETRIOSIS **Sachin Naiknaware**, *India*	
14:51-14:58	BEYOND DUOSTIM: MULTIPLE OOCYTE RETRIEVALS WITHIN A SINGLE MENSTRUAL CYCLE TO MAXIMIZE MATURE OOCYTE YIELD IN POOR RESPONDERS **Olesia Pliekhova**, *Ukraine*	
14:58-15:05	REDUCED OVARIAN RESERVE DESPITE SPONTANEOUS MENSES IN WOMEN WITH TRANSFUSION-DEPENDENT B-THALASSEMIA: A MATCHED CASE-CONTROL STUDY **Vasileios Tsilionis**, *Greece*	
REPRODUCTIVE GENETICS		
15:05-15:12	SINGLE-CELL TRANSCRIPTOMICS OF HUMAN OOCYTES REVEAL OVARIAN PATHOLOGY-SPECIFIC MOLECULAR SIGNATURES **Patricia Fauque**, *France*	
15:12-15:19	REEVALUATING SEGMENTAL ANEUPLOIDIES IN PGT-A: CLINICAL OUTCOMES AND BIOLOGICAL BEHAVIOR ACROSS RE-BIOPSIES **Yosu Franco Iriarte**, *Spain*	
15:19-15:26	PREIMPLANTATION GENETIC TESTING FOR MONOGENIC DISORDERS (PGT-M) OR STRUCTURAL REARRANGEMENTS (PGT-SR): RESULTS FROM A DANISH PGT-CENTRE **Anna Sofie Himmer**, *Denmark*	

15:30-16:00	*Coffee break*

16:00-17:00	**ORAL PRESENTATION SESSION 4:** **GYNECOLOGY:** CASE REPORT / STUDY | TECHNOLOGICAL INNOVATIONS	**HALL C**
Chairpersons	**Andrea Genazzani**, *Italy* **Linda Harel**, *Israel*	
CASE REPORT / STUDY		
16:00-16:07	FROM TERMINAL THOUGHTS TO BENIGN TRUTHS: UNMASKING AN ADENOMYOTIC CYST IN A POSTMENOPAUSAL WOMAN - A CASE REPORT **Andrea Teresa Amores**, *Philippines*	
16:07-16:14	VAGINOSCOPY-ASSISTED VAGINAL MYOMECTOMY FOR A PROLAPSED SUBMUCOUS MYOMA IN A 13-YEAR-OLD ADOLESCENT: A CASE REPORT **Jenelle Rayza Bulaong**, *Philippines*	
16:14-16:21	EXTRAMEDULLARY RELAPSE OF ACUTE LYMPHOBLASTIC LEUKEMIA INVOLVING THE UTERUS, OVARIES, AND CERVIX PRESENTING AS ABNORMAL UTERINE BLEEDING: FIRST DOCUMENTED CASE IN THE PHILIPPINES **Rochere Aubrey Olabe**, *Philippines*	
16:21-16:28	PARANEOPLASTIC CEREBELLAR DEGENERATION ASSOCIATED WITH MATURE CYSTIC TERATOMA: A RARE CASE REPORT **Reo Rentoy**, *Philippines*	

16:28-16:35	EFFECTS OF STANDARDIZED PATIENT SIMULATION ON MIDWIFERY STUDENTS` COMMUNICATION SKILLS, ATTITUDES TOWARD VIOLENCE AGAINST WOMEN, AND RECOGNITION OF SIGNS OF VIOLENCE: AN EMBEDDED MIXED-METHODS STUDY **Didem Simsek Kucukkelepce**, *Türkiye*
16:35-16:42	A CASE OF ANDROGEN INSENSITIVITY SYNDROME WITH MALIGNANT GERM CELL TUMOR IN A 67-YEAR-OLD WOMAN **Anna Marie Velicaria**, *Philippines*
TECHNOLOGICAL INNOVATIONS	
16:42-16:49	ULTRASOUND AS A DIAGNOSTIC TOOL IN FEMALE GENITAL MUTILATON **Disha Karim**, *Belgium*
16:49-16:56	THE SURGICAL ALGORITHM OF DR. SACHIN'S CRITERIA - STANDARDIZING ADNEXAL TORSION MANAGEMENT **Sachin Naiknaware**, *India*

17:00-18:30	**ORAL PRESENTATION SESSION 5:** **FETOMATERNAL MEDICINE:** LABOR AND DELIVERY | MULTIFETAL PREGNANCY	**HALL E**
Chairpersons	**Liran Hiersch**, *Israel* **Dilli Anumba**, *UK*	
LABOR AND DELIVERY		
17:00-17:07	THE EFFECT OF POSTPARTUM LAUGHTER THERAPY ON MARITAL ADJUSTMENT, LIFE SATISFACTION, AND MATERNAL ATTACHMENT IN MOTHERS: A RANDOMIZED CONTROLLED TRIAL **Hacer Alan Dikmen**, *Türkiye*	
17:07-17:14	AUDIT OF INDUCTION OF LABOUR PRACTICE, GUIDELINE ADHERENCE AND MATERNAL AND NEONATAL OUTCOMES AT AL WAKRA HOSPITAL **Nada AlShammari**, *Qatar*	
17:14-17:21	THE EFFECT OF ANTENATAL ANXİETY ON MODE OF DELİVERY PREFERENCE IN PRIMIGRAVID WOMEN **Meryem Atay**, *Türkiye*	
17:21-17:28	BEYOND HYSTERECTOMY: FERTILITY-PRESERVING MANAGEMENT OF PLACENTA ACCRETA SPECTRUM WITH HIGH-INTENSITY FOCUSED ULTRASOUND (HIFU) **Denise Claire Baltazar**, *Philippines*	
17:28-17:35	AUTOMATIC ASSESSMENT OF FETAL HEAD STATION VIA TRANSPERINEAL ULTRASOUND IN LABOR: ACCURACY AND CLINICAL RELIABILITY COMPARED TO DIGITAL VAGINAL EXAMINATION **Alberto Bottino**, *Italy*	
17:35-17:42	SLING-SUPPORTED SKIN-TO-SKIN CONTACT AFTER CESAREAN BIRTH IN PRIMIPAROUS WOMEN: A RANDOMIZED CONTROLLED TRIAL **Merve Coşkun**, *Türkiye*	
17:42-17:49	THE EFFECT OF FATHERS' BREASTFEEDING ATTITUDES AND PARTICIPATION ON PATERNAL-INFANT ATTACHMENT **Mehtap Duran**, *Türkiye*	
17:49-17:56	THE RELATIONSHIP BETWEEN SENSE OF COHERENCE AND LABOR PAIN WITH POSTPARTUM DEPRESSION: A PROSPECTIVE COHORT STUDY **Gulnaz Erdi**, *Türkiye*	
17:56-18:03	EFFECT OF PARTNER-ADMINISTERED ENDORPHIN MASSAGE BEFORE CESAREAN BIRTH ON PREOPERATIVE ANXIETY AND PAIN: A RANDOMISED CONTROLLED TRIAL **Özge Topsakal,** *Türkiye*	
18:03-18:10	THE RELATIONSHIP BETWEEN PERCEPTIONS OF INDIVIDUALIZED CHILDBIRTH CARE AND PERCEPTIONS OF CHILDBIRTH-RELATED TRAUMA IN POSTPARTUM WOMEN **Aysegul Yilmaz**, *Türkiye*	
MULTIFETAL PREGNANCY		
18:10-18:17	ASSOCIATION BETWEEN MODE OF CONCEPTION AND BIRTH-WEIGHT DISCORDANCE IN TWIN PREGNANCIES **Athina Samara**, *Greece*	
18:17-18:24	RISK FACTORS FOR INTERVENTION-REQUIRING POSTPARTUM HEMORRHAGE FOLLOWING CESAREAN DELIVERY IN TWIN PREGNANCIES: A RETROSPECTIVE COHORT STUDY **Juseok Yang**, *South Korea*	

19:30-20:30	*Networking Reception in the exhibition area*

10:30-12:01	**ORAL PRESENTATION SESSION 6:** **GYNECOLOGY:** GYNECOLOGICAL ONCOLOGY | POI	**HALL E**
Chairpersons	**Mark Brincat**, *Malta* **Joop Laven**, *Netherlands*	
GYNECOLOGICAL ONCOLOGY		
10:30-10:37	RESECTION OF AN ISOLATED ABDOMINAL WALL METASTASIS 5 YEARS AFTER PRIMARY ENDOMETRIOID CARCINOMA OF THE OVARY **Rachel Dominique Conti-Rafael**, *Philippines*	
10:37-10:44	THE PATH TO SCREENING: EXAMINING WOMEN`S PERCEPTIONS OF BENEFITS AND BARRIERS TO CERVICAL CANCER SCREENING **Aliye Doğan Gangal**, *Türkiye*	
10:44-10:51	DIAGNOSTIC PERFORMANCE OF INTRATUMORAL DOPPLER RESISTANCE INDEX IN DIFFERENTIATING MALIGNANT FROM BENIGN ADNEXAL MASSES: COMPARISON WITH IOTA SIMPLE RULES **Aleksandar Jurisic**, *Serbia*	
10:51-10:58	IMPLEMENTATION OF MINIMALLY INVASIVE SURGERY WITHIN A GYNECOLOGIC ONCOLOGY FELLOWSHIP IN EL SALVADOR: THE FIRST SEVENTEEN CASES AT A NATIONAL REFERRAL HOSPITAL **Payam Katebi Kashi**, *USA*	
10:58-11:05	THE RELATIONSHIP BETWEEN STRENGTH OF RELIGIOUS FAITH, PSYCHOLOGICAL RESILIENCE, AND FEAR OF RECURRENCE IN GYNAECOLOGICAL CANCER PATIENTS: A PATH ANALYSIS **Nuray Kurt**, *Türkiye*	
11:05-11:12	PROGNOSTIC SIGNIFICANCE OF POST-TREATMENT TOTAL LYMPHOCYTE COUNT IN LOCALLY ADVANCED CERVICAL CANCER AFTER DEFINITIVE CHEMORADIOTHERAPY **Chutisa Phuvaruttanakul**, *Thailand*	
11:12-11:19	CONCOMITANT UTERINE ADENOSARCOMA AND OVARIAN SERTOLI CELL TUMOR: A CASE REPORT AND LITERATURE REVIEW OF RARE SYNCHRONOUS GYNECOLOGIC NEOPLASMS **Abigail Anne Rojo**, *Philippines*	
11:19-11:26	EMOTIONAL AND PSYCHOSOCIAL IMPACT OF GESTATIONAL TROPHOBLASTIC NEOPLASIA ON PATIENTS AND THEIR PARTNERS: AN EXPLORATORY MIXED-METHODS STUDY **Kristina Vade Santos**, *Philippines*	
11:26-11:33	LEIOMYOSARCOMA WITH A HARD EDGE: EXPLORING OSTEOSARCOMATOUS DIVERGENCE A CASE OF OSTEOSARCOMATOUS DIFFERENTIATION IN LEIOMYOSARCOMA **Jyna Giselle Trumata**, *Philippines*	
11:33-11:40	REWRITING SEXUAL SCRIPTS IN WOMEN WITH GYNECOLOGICAL CANCER: A PHENOMENOLOGICAL STUDY **Sevda Yildirim**, *Türkiye*	
11:40-11:47	IS COMPLETION SURGERY NECESSARY AFTER FERTILITY-SPARING TREATMENT OF EARLY-STAGE OVARIAN CANCER? A CASE SERIES OF TEN WOMEN IN WHOM PRESERVED FERTILITY WAS NEVER USED **Payam Katebi Kashi**, *USA*	
POI		
11:47-11:54	HORMONE THERAPY UTILIZATION IN WOMEN WITH PREMATURE OVARIAN INSUFFICIENCY: A MULTICENTER RETROSPECTIVE STUDY FROM SAUDI ARABIA **Sadia Malick**, *Saudi Arabia*	
OTHER		
11:54-12:01	SUSTAINABLE WOMEN'S HEALTHCARE: TRANSLATING PLANETARY HEALTH INTO CLINICAL PRACTICE IN GYNECOLOGY AND REPRODUCTIVE MEDICINE **Roxana Schwab**, *Germany*	
12:00-12:05	*Change of session*	

12:05-12:30	**PLENARY SESSION**	**HALL A** *Streamed to Hall D & E*
Capsule	PCOS is the most common endocrinopathy that affect all phases of women's life.	
Chairpersons	**Bart Fauser**, *Netherlands* **Joop Laven**, *Netherlands*	
12:05-12:25	PCOS in OBGYN (overview of PCO in reproductive life, menopause, pregnancy etc) **Terhi Piltonen**, *Finland*	
12:25-12:30	Discussion	
12:30-12:35	*Change of session*	

12:35-13:35	**INDUSTRY SUPPORTED SESSION** *See page 51*	**HALL B**

12:35-13:05	**INDUSTRY SUPPORTED SESSION** *See page 51*	**HALL C**

12:35-13:35	**ORAL PRESENTATION SESSION 7:** **ART/IVF/INFERTILITY:** UTERINE PATHOPHYSIOLOGY | OTHER	**HALL E**
Chairpersons	**Vasiliki A. Moragianni**, *USA* **Pietro Molinaro**, *Italy*	
UTERINE PATHOPHYSIOLOGY		
12:35-12:42	GYNECOLOGIC DISORDERS ASSOCIATED WITH CHRONIC ENDOMETRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF ASSOCIATION AND PREVALENCE **Miguel Caballero-Campo**, *Ireland*	
12:42-12:49	THERAPEUTIC APPROACHES FOR CHRONIC ENDOMETRITIS IN REPRODUCTIVE FAILURE: UPDATED SYSTEMATIC REVIEW AND META-ANALYSIS **Maria Carrera**, *Spain*	
12:49-12:56	CAN ENDOMETRIAL TRANSCRIPTOMICS IDENTIFY CHRONIC ENDOMETRITIS BEYOND CD138-BASED HISTOPATHOLOGY IN RECURRENT IMPLANTATION FAILURE? **Yutaka Iwaki**, *Japan*	
12:56-13:03	REAL-TIME TRANSVAGINAL ULTRASOUND-GUIDED MICROWAVE ABLATION (RT-TVUS-MWFA) OF UTERINE FIBROIDS USING THE LOW-ENERGY MULTIPLE OVERLAPPING ABLATION (LEMOA) TECHNIQUE: VOLUMETRIC, SYMPTOMATIC, AND QUALITY-OF-LIFE OUTCOMES FROM A RETROSPECTIVE SINGLE-CENTER EXPERIENCE **Kyriakos Kakoullis**, *Cyprus*	
13:03-13:10	MATERNAL KIR HAPLOTYPE DISTRIBUTION ACROSS INFERTILITY PHENOTYPES IN A REPRODUCTIVE IMMUNOLOGY REFERRAL COHORT **Esther Marban**, *Spain*	
OTHER		
13:10-13:17	COMPARATIVE ASSESSMENT OF THE ANTIOXIDANT AND CYTOPROTECTIVE ACTIVITY OF FOUR COMMERCIAL INOSITOL-BASED FOOD SUPPLEMENTS IN AN ENDOMETRIAL CELL MODEL **Andreia Fernandes**, *Spain*	
13:17-13:24	HEALTH STATUS OF CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: FINDINGS FROM THE FIRST CENTRAL ASIAN PROSPECTIVE CASE-CONTROL STUDY **Sevara Ilmuratova**, *Kazakhstan*	

13:35-14:30	*Lunch break, visit the exhibition and e-poster viewing*

14:30-15:30	**ORAL PRESENTATION SESSION 8:** **GYNECOLOGY**: GYNECOLOGY	**HALL E**
Chairpersons	**Johannes Ott**, *Austria* **Eileen Manalo**, *Philippines*	
14:30-14:37	PREDICTING ADNEXAL TORSION USING A PREOPERATIVE PREDICTIVE SCORE AT A TERTIARY HOSPITAL IN DAVAO CITY: A PROSPECTIVE STUDY **Riza June Monarca**, *Philippines*	
14:37-14:44	ARTIFICIAL INTELLIGENCE-ASSISTED LAPAROSCOPIC RECOGNITION OF ENDOMETRIOSIS: A SYSTEMATIC REVIEW OF EARLY EVIDENCE, TRANSLATIONAL BARRIERS AND FUTURE SURGICAL DECISION SUPPORT **Mouli Nandi**, *United Kingdom*	
14:44-14:51	EVALUATION OF OBSTETRIC VIOLENCE PERCEPTION AND BIRTH TRAUMA IN WOMEN WITH VAGINAL DELIVERY **Hava Ozkan**, *Türkiye*	
14:51-14:58	PREVALENCE OF DYSMENORRHEA AND ITS IMPACT ON THE MILITARY PERFORMANCE AMONG FEMALE FOURTH CLASS CADETS AT A MILITARY INSTITUTION DURING THE ACADEMIC YEAR JANUARY 2022 TO DECEMBER 2024 **Eliza Junel Patagnan**, *Philippines*	
14:58-15:05	DOES OVULATION PROMOTE ENDOMETRIOSIS? FOLLICULAR FLUID IL-8 DRIVES CXCR1/2-DEPENDENT CHEMOTAXIS OF ENDOMETRIOTIC CELLS **Roxana Schwab**, *Germany*	
15:05-15:12	MENOPAUSAL BRAIN FOG AND QUALITY OF LIFE: A COMPARATIVE STUDY OF EARLY AND LATE POSTMENOPAUSAL WOMEN **Güzin Ünlü Suvari**, *Türkiye*	
15:12-15:19	VAGINAL MICROBIOME AWARENESS: 2026 RESULTS FROM THE INTERNATIONAL MICROBIOTA OBSERVATORY IN 11 COUNTRIES **Olivier Valcke**, *France*	
15:19-15:26	INNOVATIONS IN MENOPAUSE CARE: POPULATION INSIGHTS AND A NOVEL DIGITAL MENOPAUSE CONSULTATION SERVICE **Israel Yoles**, *Israel*	

15:30-15:35	*Change of session*

15:35-17:00	**ORAL PRESENTATION SESSION 9:** **GYNECOLOGY**: HPV | GYNECOLOGY	**HALL E**
Chairpersons	**Alessandra Graziottin**, *Italy* **Igor Jeremic**, *Serbia*	
HPV		
15:35-15:42	EXPERT COLPOSCOPY WITH STANDARDIZED RADIO-WAVE LOOP EXCISION IN THE DIAGNOSIS OF HIGH - GRADE CERVICAL LESIONS IN YOUNG NULLIPAROUS WOMEN **Igor Jeremic**, *Serbia*	
15:42-15:49	HPV INFECTION IN PREGNANCI: CONDYLOMAS, CERVICAL LESIONS AND OUTCOMES OF RADIO WAVW TREATMENT **Igor Jeremic**, *Serbia*	
15:49-15:56	POST-HYSTERECTOMY VAIN3 FOLLOWING ENDOMETRIAL CARCINOMA: A SUCCESSFUL APPROACH WITH CO_2 LASER **Beatriz Sousa Ferreira**, *Portugal*	
15:56-16:03	EVALUATION OF HUMAN PAPILLOMA VIRUS (HPV) KNOWLEDGE, AWARENESS AND CONCERN LEVELS OF WOMEN IN REPRODUCTIVE AGE: A QUASI-EXPERIMENTAL STUDY **Abdurrahim Uyanik**, *Türkiye*	
GYNECOLOGY		
16:03-16:10	VAGINAL COLONIZATION WITH LACTOBACILLUS CRISPATUS ENHANCES GAMMA-DELTA T CELL AND NATURAL KILLER CELL FUNCTIONAL READINESS **Heeyon Kim**, *South Korea*	
16:10-16:17	EMERGENCY CERCLAGE FOR BULGING MEMBRANE IN THE MIDTRIMESTER: TO STITCH OR NOT TO STITCH? **Avinoam Tzabari**, *Israel*	
16:17-16:24	MATERNAL CHARACTERISTICS ASSOCIATED WITH SMALL FOR GESTATIONAL AGE INFANTS AMONG WOMEN WITH SUBCLINICAL HYPOTHYROIDISM IN EARLY PREGNANCY: A MULTICENTER PROSPECTIVE COHORT STUDY **Juan Li**, *China*	
16:24-16:31	SESN2 SUPPRESSES FERROPTOSIS IN POLYCYSTIC OVARY SYNDROME BY MAINTAINING PRDX6 K209 LACTYLATION **Yingying Li**, *China*	
16:31-16:38	FROM KELLY TO KIWI: CAN WE FIX SUI WITHOUT MESH? THE MAKARY KIWI STITCH - OLD STITCH, NEW TRICKS **Nagy Albert Makary**, *New Zealand*	
16:38-16:45	BENCH TO BEDSIDE, EXPANDED: SERUM MIRNA TESTING IDENTIFIES HISTOLOGICALLY CONFIRMED ADVANCED ENDOMETRIOSIS IN 458 SYMPTOMATIC WOMEN WITH NEGATIVE PELVIC IMAGING **Payam Katebi Kashi**, *USA*	
16:45-16:52	DIVERSE CLINICAL PRESENTATIONS AND DIAGNOSTIC CHALLENGES OF OHVIRA SYNDROME IN ADOLESCENTS: A CASE SERIES EMPHASIZING EARLY RECOGNITION AND MULTIDISCIPLINARY MANAGEMENT **Zeus Michael Mendoza**, *Philippines*	
16:52-16:59	ZURANOLONE IN PUERPERAL PSYCHOSIS: A NEW POSSIBILITY FOR TREATING POSTPARTUM PSYCHIATRIC DISORDERS **Carolina Milani**, *Brazil*	

17:00-17:20	*Coffee break, visit the exhibition and e-poster viewing*

17:20-18:30	**ORAL PRESENTATION SESSION 10:** **ART/IVF/INFERTILITY**: ANDROLOGY | EMBRYOLOGY	**HALL E**
Chairpersons	**George Daskalakis**, *Greece* **Konstantinos Dafopoulos**, *Greece*	
ANDROLOGY		
17:20-17:27	DOES ULTRASOUND-DERIVED TESTICULAR VOLUME ADD PROGNOSTIC VALUE BEYOND SERUM FSH FOR FIRST-ATTEMPT SURGICAL SPERM RETRIEVAL? **Nurhamizah Abdul Rashid**, *Singapore*	
17:27-17:34	EFFECTS OF OXIDATIVE STRESS IN SPERM **Antonios Gkountis**, *Greece*	
17:34-17:41	TWO-STEP SPERM PREPARATION MEDIUM: INCREASING HYPERACTIVATION AND PROGRESSIVE MOTILITY IN FRESH AND FROZEN SAMPLES **Julianna Lamm**, *USA*	

17:41-17:48	ELEVATED DOUBLE-STRAND DNA FRAGMENTATION IN SPERM IS ASSOCIATED WITH LOWER FERTILIZATION RATE BUT NOT EUPLOIDY RATES IN AUTOLOGOUS PGT-A CYCLES **Esther Marban**, *Spain*
17:48-17:55	MORE INFORMATION, BETTER PREDICTION? FUNCTIONAL SPERM TESTING AND THE GAP BETWEEN BIOLOGICAL SIGNAL AND OUTCOME PREDICTION IN ICSI **Nabil Sayme**, *Germany*
EMBRYOLOGY	
17:55-18:02	BEYOND MATERNAL AGE: BLASTOCYST EXPANSION AND TROPHECTODERM GRADE IMPROVE EUPLOIDY PREDICTION IN AUTOLOGOUS PGT-A CYCLES **Valeria Aguirre Cavazos**, *Mexico*
18:02-18:09	ARTIFICIAL INTELLIGENCE-ASSISTED EMBRYO SELECTION IS ASSOCIATED WITH IMPROVED REPRODUCTIVE OUTCOMES IN FROZEN EMBRYO TRANSFER CYCLES: A RETROSPECTIVE ANALYSIS OF 3,575 TRANSFERS **Carolina Andres**, *Spain*
18:09-18:16	DO SMOOTH ENDOPLASMIC RETICULUM CLUSTERS ADD INFORMATION BEYOND AN ARTIFICIAL INTELLIGENCE-BASED OOCYTE SCORE? A PROSPECTIVE STUDY OF 832 MII OOCYTES **Yosu Franco Iriarte**, *Spain*
18:16-18:23	PSYCHO-EMOTIONAL STRESS AS A NON-GENETIC MODULATOR OF PREIMPLANTATION EMBRYO DEVELOPMENTAL COMPETENCE IN IVF CYCLES **Pratyusita Mishra**, *India*
18:23-18:30	LABORATORY PERSPACTIVES, 5/4(AA) VS 5/4(BB,BA,AB) GRADE, SYNCHRONIZING THE, BLASTOCYST SELECTION, MATERNAL AGE, ENDOMATRIUM THICKNESS, WITHOUT AI/TIME LAPS **Chand Mohamad**, *India*

Saturday, November 14, 2026

08:30-10:00	**ORAL PRESENTATION SESSION 11:** **HALL B** **FETOMATERNAL MEDICINE**: HIGH RISK PREGNANCY
Chairpersons	**Jim Thornton**, *UK* **Gerard Visser**, *Italy*
08:30-08:37	INTRAOPERATIVE BLOOD LOSS AND ITS ASSOCIATION WITH PLACENTA ACCRETA SPECTRUM SEVERITY BASED ON THE FIGO 2019 CLASSIFICATION IN CESAREAN HYSTERECTOMY USING THE POSTERIOR APPROACH **Jed Jedsongtham**, *Thailand*
08:37-08:44	NON-INVASIVE FUNCTIONAL DIAGNOSIS OF ENDOTHELIAL DYSFUNCTION AS A BASIS FOR PERSONALISED PRE-ECLAMPSIA PREVENTION **Vladislava Khalenko**, *Russia*
08:44-08:51	RAISED INTRACRANIAL TENSION PRESENTING AS AN ISOLATED RIGHT SIXTH NERVE PALSY IN THE THIRD TRIMESTER OF A HIGH RISK PREGNANCY: A CASE REPORT **Aruna Kumari Venkata**, *India*
08:51-08:58	HYPOKALEMIA IN PREECLAMPSIA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF SERUM POTASSIUM LEVELS COMPARED TO NORMAL PREGNANCY **Sarah Mae Lazaga**, *Philippines*
08:58-09:05	CHRONIC HYPERTENSION RATHER THAN OTHER HDP SUBTYPES IS ASSOCIATED WITH STILLBIRTH: EVIDENCE FROM A CHINESE BIRTH COHORT **Zhan Li**, *China*
09:05-09:12	GESTATIONAL DIABETES AND PLACENTAL VASCULAR DYSFUNCTION: IS MATERNAL HYPERGLYCEMIA RESHAPING THE FETAL-PLACENTAL CIRCULATION? **Carolina Milani**, *Brazil*
09:12-09:19	SIGNIFICANCE OF OBSTETRIC-COMORBIDITY-INDEX IN DETERMINING INCIDENCE OF SEVERE MATERNAL MORBIDITY IN PATIENTS ADMITTED IN THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY AT A TERTIARY HOSPITAL IN PASAY CITY **Lara Mari Pacheco**, *Philippines*
09:19-09:26	ASSOCIATION BETWEEN FIRST-TRIMESTER PREDICTED PREECLAMPSIA RISK AND GESTATION AGE AT DELIVERY **Intouch Sophark**, *Thailand*
09:26-09:33	THE TRAMLINE SIGN: A NOVEL ULTRASOUND MARKER FOR PLACENTA ACCRETA SPECTRUM SEVERITY **Nattarika Vachirarattanavong**, *Thailand*
09:33-09:40	ASSOCIATION BETWEEN ROUTINE BLOOD COUNT PARAMETERS AND SUPERIMPOSED PREECLAMPSIA IN PREGNANT WOMEN WITH CHRONIC HYPERTENSION **Zhishan Xie**, *China*
09:40-09:47	EARLY-AND MID-PREGNANCY INTERLEUKIN PROFILES IN GESTATIONAL HYPERTENSION AND PREECLAMPSIA: A NESTED CASE-CONTROL STUDY **Yuanyuan Xiong**, *China*

09:47-09:54	THE EFFECTS OF PRENATAL ALCOHOL EXPOSURE ON FETAL GROWTH, NEURODEVELOPMENT AND INFANT HEALTH: A SYSTEMATIC REVIEW AND META-ANALYSIS **Eda Yakit Ak**, *Türkiye*

08:30-10:00	**ORAL PRESENTATION 12:** **ART/IVF/INFERTILITY**: INFERTILITY/ENDOCRINOLOGY | GENETICS & GENOMICS	**HALL E**
Chairpersons	**Edgardo Somigliana**, *Italy* **Darren Griffin**, *UK*	
INFERTILITY/ENDOCRINOLOGY		
08:30-08:37	PHASE-SPECIFIC CHANGES IN ANTI- AND PRO-INFLAMMATORY CYTOKINES AND THEIR ASSOCIATIONS WITH HORMONAL PROFILES AND IVF/ICSI OUTCOMES **Suchawadee Chanheng**, *Thailand*	
08:37-08:44	INTRAOVARIAN ADMINISTRATION OF AUTOLOGOUS ADIPOSE-DERIVED STEM CELLS AS INVESTIGATIONAL REGENERATIVE STRATEGY TO ENHANCE OVARIAN FUNCTION AND FOLLICULOGENESIS IN WOMEN WITH DIMINISHED RESERVE **Ulyana Dorofeyeva**, *Slovakia*	
08:44-08:51	IMPROVED PREGNANCY RATES FOLLOWING SUPPLEMENTATION WITH A 3.6:1 MYO-/D-CHIRO-INOSITOL AND ANTIOXIDANT COMBINATION IN WOMEN WITH ≥6 MONTHS OF INFERTILITY: AN OBSERVATIONAL STUDY **Andreia Fernandes**, *Spain*	
08:51-08:58	IDENTIFICATION OF RISK FACTORS THAT INCREASE CADMIUM EXPOSURE **Marko Ilincic**, *Serbia*	
08:58-09:05	EFFECTS OF ESTETROL/DROSPIRENONE VERSUS ETHINYL ESTRADIOL/ DROSPIRENONE ON VENOUS THROMBOEMBOLISM-RELATED BIOMARKERS IN WOMEN WITH PMOS: A RANDOMIZED CONTROLLED TRIAL **Satit Klangsin**, *Thailand*	
09:05-09:12	THE OOCYTE CYCLE-BJEKOVIC **Luka Rekovic**, *Serbia*	
09:12-09:19	PREMATURE OVARIAN INSUFFICIENCY: ROLE OF MITOCHONDRIAL FATTY ACID METABOLISM IN FOLLICULAR AND OOCYTE DYNAMICS **Mona Sharma**, *India*	
09:19-09:26	PHASE-SPECIFIC KISSPEPTIN PREDICTIVE PERFORMANCE, DYNAMIC CHANGES, AND ASSOCIATIONS WITH IVF/ICSI OUTCOMES **Chantacha Sitticharoon**, *Thailand*	
09:26-09:33	CLINICAL PREGNANCY PREDICTION AND PHASE-SPECIFIC CHANGES IN IGF-1 DURING IVF/ICSI WITH MECHANISTIC INSIGHTS FROM HUMAN GRANULOSA-LIKE TUMOR (KGN) CELLS **Rungnapa Sririwichitchai**, *Thailand*	
09:33-09:40	ANTINUCLEAR FACTOR AS A PREDICTOR OF ADVERSE REPRODUCTIVE OUTOCOMES **Oksana Tigina**, *Russia*	
GENETICS & GENOMICS		
09:40-09:47	MAKING SINGLE-NUCLEUS TRANSCRIPTOMICS CLINICALLY FEASIBLE FOR HUMAN ENDOMETRIAL RESEARCH: A SCALABLE WORKFLOW DEVELOPED FOR THE README STUDY **Vojtech Lukavec**, *Czech Republic*	

10:00-10:30	*Coffee break, visit the exhibition and e-poster viewing*

10:30-12:00	**ORAL PRESENTATION 13:** **FETOMATERNAL MEDICINE**: CASE STUDY/REPORT | OTHER	**Hall B**
Chairpersons	**Gerard Visser**, *Italy* **Jim Thornton**, *UK*	
CASE STUDY/REPORT		
10:30-10:37	SYMPTOMATIC INTRACRANIAL TUMOR IN PREGNANCY: A CASE SERIES **John Patrick Bulaong**, *Philippines*	
10:37-10:44	KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) TOWARD ANTENATAL EXERCISE AMONG PREGNANT WOMEN IN A TERTIARY HOSPITAL IN THE PHILIPPINES: A CROSS-SECTIONAL STUDY **Rachel Dominique Conti-Rafael**, *Philippines*	
10:44-10:51	INCIDENTAL LOW GRADE MUCINOUS NEOPLASM OF APPENDIX DURING CESAREAN SECTION: A CASE REPORT **Ryan Tanchuling**, *Philippines*	
10:51-10:58	COMPARISON OF OUTCOMES BETWEEN ULTRA-FAST EMBRYO VITRIFICATION-WARMING AND ULTRA-FAST VITRIFICATION-STANDART WARMING PROTOCOLS **Feriba Turhan**, *Türkiye*	

OTHER	
10:58-11:05	THE EFFECT OF MOTHERS` SELF-CARE CAPACITY IN THE POSTPARTUM PERIOD ON MATERNAL ATTACHMENT LEVEL AND BREASTFEEDING ATTITUDE **Hacer Alan Dikmen**, *Türkiye*
11:05-11:12	INDICATIONS FOR AMNIOCENTESIS IN A TERTIARY PRENATAL DIAGNOSIS CENTER IN 2025: A RETROSPECTIVE OBSERVATIONAL STUDY **Catarina Carvalho Oliveira**, *Portugal*
11:12-11:19	ASSOCIATIONS BETWEEN PERCEIVED SOCIAL SUPPORT DURING PREGNANCY, PRENATAL ANXIETY, AND PREGNANCY ACCEPTANCE AMONG PREGNANT WOMEN **Hilal Gizem Dalgic**, *Türkiye*
11:19-11:26	AN INVESTİGATİON OF THE RELATİONSHİP BETWEEN CLİMATE CHANGE ANXİETY AND BREASTFEEDİNG ADAPTATİON İN POSTPARTUM MOTHERS **Beyza Ercen**, *Türkiye*
11:26-11:33	CLINICAL OUTCOMES OF PATIENTS ON ENHANCED RECOVERY AFTER CESAREAN SECTION (ERAC) PROTOCOL VS CONVENTIONAL CARE IN A TERTIARY GOVERNMENT HOSPITAL: A RANDOMIZED CONTROLLED TRIAL **Charmaine Diamond Pineda**, *Philippines*
11:33-11:40	NFKB1 MEDIATES PM2.5 EXPOSURE-INDUCED CONGENITAL HEART DISEASE VIA REGULATING CARDIOMYOCYTE APOPTOSIS **Yuan Wang**, *China*
11:40-11:47	AGE AT MENARCHE AND ADVERSE BIRTH OUTCOMES IN 8 MILLION CHINESE REPRODUCTIVE-AGE WOMEN: A NATIONWIDE COHORT STUDY **Ying Yang**, *China*
11:47-11:51	THE RELATIONSHIP BETWEEN PRIMIPAROUS PREGNANT WOMEN'S PERCEPTIONS OF SPOUSAL SUPPORT AND THEIR READINESS FOR HYGIENIC NEWBORN CARE **Tugba Kanarya**, *Türkiye*

10:30-12:00	**ORAL PRESENTATION 14:** **FETOMATERNAL MEDICINE**: LABOR AND DELIVERY	**Hall E**
Chairpersons	**Aggeliki Gerede**, *Greece* **Ilenia Mappa**, *Italy*	
10:30-10:37	INTRAOBSERVER AND INTEROBSERVER VARIABILITY IN CARDIOTOCOGRAM INTERPRETATIONS AMONG OBSTETRICS AND GYNECOLOGY RESIDENTS AND FELLOWS-IN-TRAINING IN A TERTIARY HOSPITAL IN DAVAO CITY **Kahleya Jadine Estimada-Obach**, *Philippines*	
10:37-10:44	THE RELATIONSHIP BETWEEN BIRTH HEALTH BELIEFS AND MODE OF DELIVERY PREFERENCES AMONG NULLIPAROUS PREGNANT WOMEN **Oznur Hasdemir**, *Türkiye*	
10:44-10:51	ANALYSIS OF CESAREAN SECTION RATES USING ROBSON TEN-GROUP CLASSIFICATION SYSTEM IN A TERTIARY TEACHING HOSPITAL IN DAVAO CITY **Lianne Mae Homez**, *Philippines*	
10:51-10:58	INVESTIGATION OF THE PERCEPTIONS OF SUPPORT, STRESS LEVELS AND BREASTFEEDING SELF- EFFICACY OF WITH MOTHERS PRETERM INFANTS STAYING AT THE MOTHER HOTEL **Ayla Kanbur**, *Türkiye*	
10:58-11:05	CUMULATIVE OBSTETRICAL COMPLICATION RISK AND CLINICALLY DIAGNOSED POSTPARTUM DEPRESSION **Vesile Kocak**, *Türkiye*	
11:05-11:12	THE EFFECT OF MINDFULNESS-BASED BREASTFEEDING EDUCATION ON BREASTFEEDING OUTCOMES: A RANDOMIZED CONTROLLED TRIAL **Nuray Kurt**, *Türkiye*	
11:12-11:19	WHAT DETERMINES CHILDBIRTH SELF-EFFICACY? THE ROLE OF MATERNAL HEALTH LITERACY AND ANTENATAL ANXIETY AMONG PREGNANT WOMEN **Merve Mert-Karadas**, *Türkiye*	
11:19-11:26	CHILDBIRTH EXPERIENCE AND SATISFACTION AMONG POSPARTUM WOMEN **Andreia Mota de Sousa**, *Portugal*	
11:26-11:33	EVALUATION OF THE EFFECT OF PREGNANT WOMEN`S CHILDBIRTH ANXIETY ON CHILDBIRTH BELIEFS **Hava Özkan**, *Türkiye*	
11:33-11:40	MANAGEMENT AND OUTCOMES IN WOMEN WITH PRETERM LABOR < 34 WEEKS WITH INTACT MEMBRANES AT SONGKLANAGARIND HOSPITAL **Chanikan Rakleng**, *Thailand*	
11:40-11:47	THE EFFECT OF ONLINE PRENATAL YOGA-SUPPORTED CHILDBIRTH PREPARATION EDUCATION BASED ON SELF-EFFICACY THEORY ON FEAR OF CHILDBIRTH AND CHILDBIRTH SELF-EFFICACY: A RANDOMIZED CONTROLLED TRIAL **Eda Simsek Sahin**, *Türkiye*	

11:47-11:54	DEVELOPMENT AND TEMPORAL VALIDATION OF P-RADS: A PREDICTIVE RISK CALCULATOR FOR COMPOSITE PERINATAL OUTCOMES IN NULLIPAROUS, TERM, SINGLETON, VERTEX (NTSV) DELIVERIES IN A PHILIPPINE TERTIARY HOSPITAL **Ma. Isabelle Tagarao**, *Philippines*

12:00-12:05	*Change of session*

12:05-12:30	**PLENARY SESSION**	**HALL A** *Streamed to Hall D & E*
Capsule	Epigenetics and reprogramming research in infertility and in utero development focuses on how DNA methylation, histone modification, and RNA interact during gametogenesis, early embryogenesis and placentation, disruption of which causes infertility and pregnancy complications.	
Chairpersons	**Rene Frydman**, *France* **Mina Popovic**, *Spain*	
12:05-12:25	Epigenetics and reprogramming **David Monk**, *UK*	
12:25-12:30	Discussion	
12:30-13:30	*Lunch break, visit the exhibition and e-poster viewing*	

13:30-15:00	**ORAL PRESENTATION SESSION 15:** **FETOMATERNAL MEDICINE**: GENETICS | HIGH RISK PREGNANCY | NON-INVASIVE NIPGT	**HALL B**
Chairpersons	**Eyal Sheiner**, *Israel* **Gian Carlo Di Renzo**, *Italy*	
GENETICS		
13:30-13:37	RECURRENT PREGNANCY LOSS AND SEVERE EARLY-ONSET FETAL GROWTH RESTRICTION: PLACENTAL PATHOLOGY OR A COL11A2 VARIANT OF UNCERTAIN SIGNIFICANCE? A CASE REPORT **Joana Gomes Moreira**, *Portugal*	
13:37-13:44	UPREGULATION OF TNFRSF1B ACTIVATES THE ER STRESS-INFLAMMATION-APOPTOSIS AXIS IN PLACENTAS OF OVERWEIGHT/OBESE WOMEN WITH GESTATIONAL DIABETES MELLITUS **Li Zhou**, *China*	
HIGH RISK PREGNANCY		
13:44-13:51	PROPHYLACTIC ABDOMINAL AORTIC BALLOON OCCLUSION FOR HEMORRHAGE CONTROL DURING PLACENTA ACCRETA SPECTRUM SURGERY: A RANDOMIZED CONTROLLED TRIAL **Meruyert Abdukassimova**, *Kazakhstan*	
13:51-13:58	IDIOPATHIC INTRACRANIAL HYPERTENSION COMPLICATED BY PREECLAMPSIA WITH SEVERE FEATURES IN PREGNANCY: A MULTIDISCIPLINARY CASE REPORT **Joana Gomes Moreira**, *Portugal*	
13:58-14:05	MATERNAL PROFILES AND ASSOCIATED OUTCOMES IN PREECLAMPSIA: A FIVE-YEAR RETROSPECTIVE STUDY IN A TERTIARY CARE CENTER **Shahad Aljebeli**, *Saudi Arabia*	
14:05-14:12	*cancelled*	
14:12-14:19	EVALUATION OF FACTORS ASSOCIATED WITH PREGNANCY-RELATED ANXIETY **Dilek Coskuner Potur**, *Türkiye*	
14:19-14:26	SPONTANEOUS UTERINE RUPTURE FROM PLACENTA PERCRETA IN AN UNSCARRED UTERUS: A THIRD-TRIMESTER CASE IN A MULTIGRAVID SMOKER **Michaela Marie Camarador Dizon**, *Philippines*	
14:26-14:33	PERIOPERATIVE HEMOSTATIC PROFILE AFTER PROPHYLACTIC ABDOMINAL AORTIC BALLOON OCCLUSION IN PLACENTA ACCRETA SPECTRUM: A RANDOMIZED CONTROLLED TRIAL **Meruyert Abdukassimova**, *Kazakhstan*	
14:33-14:40	CMV AWARENESS AMONG SERONEGATIVE POSTPARTUM WOMEN: THE POSTPARTUM PERIOD AS AN OPPORTUNITY FOR PREVENTIVE COUNSELING **Aviya Hetzroni**, *Israel*	
14:40-14:47	MATERNAL THYROID FUNCTION IN EARLY PREGNANCY AND RISK OF STIIBIRTH: A MULTICENTER PROSPECTIVE COHORT STUDY **Minhui Hu**, *China*	
NON-INVASIVE NIPGT		
14:47-14:54	BLASTOCYST MORPHOLOGY AND NON-INVASIVE PGT-A: ASSESSING THE RELATIONSHIP BETWEEN EMBRYO QUALITY AND EMBRYO-DERIVED CELL-FREE DNA **Pratyusita Mishra**, *India*	

13:30-15:00	**ORAL PRESENTATION SESSION 16:** **ART/IVF/INFERTILITY**: CLINICAL ART/IVF	**HALL E**
Chairpersons	**Norbert Gleicher**, *USA* **Rami Wakim**, *UK*	
13:30-13:37	PRELIMINARY RESULTS FROM THE DANTE STUDY: A RANDOMIZED CONTROLLED TRIAL OF AN ANTI-INFLAMMATORY DIET ON IN VITRO FERTILIZATION OUTCOMES IN WOMEN WITH ENDOMETRIOSIS **Martina Abodi**, *Italy*	
13:37-13:44	REPRODUCTIVE AND PERINATAL OUTCOMES FOLLOWING PROGESTERONE-PRIMED VERSUS GNRH ANTAGONIST IVF-ICSI CYCLES: COHORT ANALYSIS CONTROLLING FOR EMBRYO TRANSFER STRATEGY **Rakhshanda Aslanova**, *Azerbaijan*	
13:44-13:51	A SUCCESSFUL IVF FOLLOWING PATIENT-TAILORED OVARIAN STIMULATION IN POOR OVARIAN RESPONSE **Emina Ejubovic**, *Bosnia and Herzegovina*	
13:51-13:58	ASSOCIATION BETWEEN OVARIAN STIMULATION PROTOCOLS AND CUMULATIVE LIVE BIRTH RATES IN US IVF PRACTICE: A MULTI-CENTRE REAL-WORLD STUDY FROM 2010 TO 2024 **Micah Joseph Hill**, *USA*	
13:58-14:05	PROGESTERONE-MODIFIED NATURAL CYCLE VS HORMONE REPLACEMENT THERAPY FOR ENDOMETRIAL PREPARATION IN DAY-3 FROZEN EMBRYO TRANSFER: A RETROSPECTIVE COHORT STUDY **Anna Khachatryan**, *Armenia*	
14:05-14:12	NORMALIZING DONOR FAMILY KINSHIP DURING FORMATIVE YEARS: AN ANALYSIS OF EARLY CONTACT IN SPERM AND EGG DONOR FAMILIES **Wendy Kramer**, *USA*	
14:12-14:19	LUTEAL-PHASE ESTROGEN PRIMING IS ASSOCIATED WITH LOWER CYCLE CANCELLATION IN WOMEN AGED ≥40 YEARS WITH POSEIDON GROUP 4 LOW PROGNOSIS **Habriella Matviiv**, *Ukraine*	
14:19-14:26	MORE FERTILISATION, BUT NOT MORE BABIES? RETHINKING ICSI AFTER SUBOPTIMAL IVF FERTILISATION **Thanos Papathanasiou**, *United Kingdom*	
14:26-14:33	DOES TIMING MATTER? ACUPUNCTURE TIMING AND CLINICAL PREGNANCY AFTER FROZEN EMBRYO TRANSFER: A RETROSPECTIVE COHORT STUDY **Kristel Dame Sumagaysay**, *Philippines*	
14:33-14:40	AI-DRIVEN 3D ORGANELLE MAPPING FOR NON-INVASIVE ASSESSMENT OF HUMAN OOCYTE **Rami Wakim**, *United Kingdom*	
14:40-14:47	ANALGESIA DURING OOCYTE RETRIEVAL: A PILOT RANDOMIZED CONTROLLED TRIAL OF ACUPUNCTURE-TYPE TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (ACU-TENS) AS A PROMISING COMPLEMENTARY MODALITY **Tsz Ching Yeung**, *Hong Kong SAR of PRC*	

15:00-16:30	**ORAL PRESENTATION SESSION 17:** **FETOMATERNAL MEDICINE**: FETAL MEDICINE | LABOR AND DELIVERY **ART/IVF/INFERTILITY**: OTHER | TECHNOLOGICAL INNOVATIONS	**HALL B**
Chairperson	**Elene Asanidze**, Georgia	
FETOMATERNAL MEDICINE: FETAL MEDICINE		
15:00-15:07	FETAL GLYCEMIA IN GESTATIONAL DIABETES MELLITUS AND ANTENATAL CORTICOSTEROID THERAPY AND FETAL HEART **Ivana Babovic**, *Serbia*	
15:07-15:14	LATE TERMINATION OF PREGNANCY FOR SEVERE FETAL CONGENITAL ANOMALIES **Vladislava Khalenko**, *Russia*	
15:14-15:21	MATERNAL RISK FACTORS AND DOPPLER ULTRASOUND FOR PREDICTING COMPOSITE ADVERSE PERINATAL OUTCOMES IN LATE-ONSET FETAL GROWTH RESTRICTION **Wattanan Watthanasathitnukun**, *Thailand*	
FETOMATERNAL MEDICINE: LABOR AND DELIVERY		
15:21-15:28	SUPPORTIVE CARE PERCEPTIONS AND PERIPARTUM VARIABLES AS PREDICTORS OF CHILDBIRTH EXPERIENCE: A CROSS-SECTIONAL ANALYSIS **Tugba Kanarya**, *Türkiye*	
ART/IVF/INFERTILITY: OTHER		
15:28-15:35	FROM IVF TREATMENT TO IVF CARE: A PATIENT-CENTRED MODEL INTEGRATING EMOTIONAL, BODY-AWARENESS AND INTIMACY SUPPORT **Anna Kolodka**, *Slovakia*	
15:35-15:42	DEFINING SAFE ZONES FOR AI-ASSISTED PATIENT EDUCATION IN IVF CLINICS: A HYBRID OPERATIONAL MODEL VALIDATED ON IVF PATIENT QUESTIONS **Gayane Sedrakyan**, *Netherlands*	
15:42-15:49	DETERMINING INTOLERANCE OF UNCERTAINTY, COPING WITH INFERTILITY-RELATED STRESS,AND SPIRITUAL WELL-BEING IN COUPLES UNDERGOING INFERTILITY TREATMENT **Didem Simsek Kucukkelepce**, *Türkiye*	

ART/IVF/INFERTILITY: TECHNOLOGICAL INNOVATIONS	
15:49-15:56	ULTRA-SHORTENED OOCYTE WARMING PROTOCOLS: EFFECTS OF DISACCHARIDE TYPE AND CONCENTRATION ON SURVIVAL AND DEVELOPMENTAL COMPETENCE AFTER PARTHENOGENETIC ACTIVATION **Maíra Casalechi**, *Italy*
15:56-16:03	CELL-BASED THERAPY FOR REFRACTORY THIN ENDOMETRIUM: AUTOLOGOUS BONE MARROW-DERIVED AND ALLOGENEIC UMBILICAL CORD-DERIVED MESENCHYMAL STROMAL CELLS **Vladislava Khalenko**, *Russia*
16:03-16:10	NOT ANOTHER AI SCRIBE: USING ARTIFICIAL INTELLIGENCE TO QUALITY-CHECK FERTILITY CONSULTATION DOCUMENTATION **Thanos Papathanasiou**, *United Kingdom*

15:00-16:30	**ORAL PRESENTATION SESSION 18:** **HALL E** **GYNECOLOGY**: OTHER | GSM/VVA | GYNECOLOGY
Chairperson	**Matthaios Fraidakis**, Greece
OTHER	
15:00-15:07	THE RELATIONSHIP BETWEEN ECO-ANXIETY AND ATTITUDES TOWARD FERTILITY AND CHILDBEARING AMONG WOMEN OF REPRODUCTIVE AGE **Nermin Altunbas**, *Türkiye*
15:07-15:14	A BRIEF PRE-PROCEDURAL COGNITIVE-BEHAVIORAL INTERVENTION REDUCES PREOPERATIVE DISTRESS AND RECOVERY PAIN IN WOMEN UNDERGOING DILATION AND CURETTAGE FOR MISCARRIAGE **Karmit Ariely Kagan**, *Israel*
15:14-15:21	DETERMINING THE RELATIONSHIP BETWEEN SUSTAINABLE NUTRITION AND HEALTHY LIFESTYLE BEHAVIORS IN INCREASING FERTILITY IN WOMEN: A PILOT STUDY **Ayseren Cevik**, *Türkiye*
15:21-15:28	INTER-RATER RELIABILITY AND CLINICAL UTILITY OF THE MODIFIED FERRIMAN-GALLWEY SCALE IN ROUTINE PRACTICE **Irena Chongaroonngamsang**, *Thailand*
15:28-15:35	GROWTH FACTORS AS KEY REGULATORS OF THE PLACENTAL SYSTEM **Dildora Juraeva**, *Uzbekistan*
15:35-15:42	THE RELATIONSHIP BETWEEN YOUNG WOMEN'S SEXUAL HEALTH LITERACY LEVELS AND SEXUAL ATTITUDES WITH THEIR TENDENCIES IN PREMARITAL RISKY SEXUAL BEHAVIOR **Halime Esra Meram**, *Türkiye*
15:42-15:49	*Cancelled*
15:49-15:56	THE EFFECT OF EMOTIONAL FREEDOM TECHNIQUE ON SLEEP QUALITY AND QUALITY OF LIFE IN POSTMENOPAUSAL WOMEN: A RANDOMIZED CONTROLLED TRIAL **Asli Sis Celik**, *Türkiye*
15:56-16:03	DETERMINING THE RELATIONSHIP BETWEEN MIDWIFERY STUDENTS' PERCEPTIONS OF CLINICAL LEARNING AND THEIR MOTIVATION **Sibel Yalvac**, *Türkiye*
GSM/VVA	
16:03-16:10	RECURRENT LABIAL FUSION IN POSTMENOPAUSE: CHALLENGES IN MANAGEMENT AND THERAPEUTIC STRATEGIES **Mikhaela Maria Rivera**, *Philippines*
GYNECOLOGY	
16:10-16:17	CASE SERIES OF COLPOSUSPENSION USING TRADITIONAL MCCALL CULDOPLASTY TECHNIQUE IN A PORTUGUESE HOSPITAL **Marta Leitao Afonso**, *Portugal*
16:17-16:24	SUB-URETHRAL BUTTRESSING FOR PROLAPSE ASSOCIATED URINARY STRESS INCONTINANCE: REPAIR FROM DESPAIR **Adel Mekhail**, *New Zealand*

Moderated e-Posters
Thursday, November 12, 2026

16:00-17:00	MODERATED E-POSTER SESSION 1: FETOMATERNAL MEDICINE	HALL E
Chairperson	**Emmanuel Attali**, *Israel*	
FETOMATERNAL MEDICINE: FMM CASE REPORT / STUDY		
16:00-16:04	DETORSION OF OVARIAN TORSION IN A DI/DI TWIN GESTATION - PRINCIPLES OF LAPARASCOPIC SURGERY IN PREGNANCY **Frederick Eruo**, *USA*	
16:04-16:08	REFRACTORY HYPOKALEMIA IN THE THIRD TRIMESTER OF PREGNANCY - MANAGEMENT PRINCIPLES **Frederick Eruo**, *USA*	
16:08-16:12	DOUBLE SET-UP DELIVERY PLAN IN TWIN PREGNANCIES - PRINCIPLES OF MANAGEMENT **Tinu Afolabi**, *USA*	
16:12-16:16	MANAGEMENT OF MATERNAL SUPRAVENTRICULAR TACHYCARDIA DURING PREGNANCY - A CASE REPORT AND REVIEW **Tinu Afolabi**, *USA*	
16:16-16:20	SILENT BUT SERIOUS - ASYMPTOMATIC BRADYCARDIA AS THE ONLY SIGN OF PERIPARTUM CARDIOMYOPATHY **Frederick Eruo**, *USA*	
FETOMATERNAL MEDICINE: FMM OTHER		
16:20-16:24	EARLY POSTPARTUM LOWER URINARY TRACT SYMPTOMS IN A TERTIARY HOSPITAL: A CROSS-SECTIONAL STUDY OF PREVALENCE, PREDICTORS, AND IMPACT ON QUALITY-OF-LIFE USING ICIQ FLUTS **Alyssa June Cruz-Mocon**, *Philippines*	
16:24-16:28	WHEN HELLP SYNDROME DOESN'T EXPLAIN IT ALL: LESSONS FROM A CHALLENGING CASE OF THROMBOTIC THROMBOCYTOPENIC PURPURA **Catarina Oliveira**, *Portugal*	
16:28-16:32	IMMUNE PROFILE ALTERATIONS IN CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: A CASE-CONTROL STUDY FROM KAZAKHSTAN **Sevara Ilmuratova**, *Kazakhstan*	
FETOMATERNAL MEDICINE: HIGH RISK PREGNANCY		
16:32-16:36	*Canceled*	
FETOMATERNAL MEDICINE: LABOR AND DELIVERY		
16:36-16:40	EDUCING RETURN TO THEATRE AFTER CAESAREAN SECTION THROUGH A STANDARDISED SURGICAL-SITE INFECTION PREVENTION BUNDLE: A QUALITY IMPROVEMENT PROJECT **Mouli Nandi**, *United Kingdom*	
FETOMATERNAL MEDICINE: MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT		
16:40-16:44	HIGH VITAMIN D INSUFFICIENCY IN SOUTH AFRICAN PREGNANCY IS ASSOCIATED WITH HIV, BUT NOT PRE-ECLAMPSIA **Vino Dorsamy**, *South Africa*	
16:44-16:48	REST AND RESET: EXTRACORPOREAL MEMBRANE OXYGENATION IN A SEVERE CASE OF POSTPARTUM STREPTOCOCCAL TOXIC SHOCK SYNDROME **Jamille Carina Ong**, *Philippines*	

Friday, November 13, 2026

08:30-10:00	MODERATED E-POSTERS SESSION 2: ART/IVF/INFERTILITY GYNECOLOGY	HALL E
Chairperson	**Rami Wakim**, *UK*	
ART/IVF/INFERTILITY: CLINICAL ART/IVF		
08:30-08:34	PREGNANCY OUTCOMES AFTER FROZEN-THAWED TRANSFER OF CC-GRADE BLASTOCYSTS AT EARLY, MID, OR FULL STAGES **Myung Joo Kim**, *South Korea*	
08:34-08:38	INFLUENCING FACTORS OF RURAL BREAST CANCER SCREENING PARTICIPATION: EVIDENCE FROM SOUTHEASTERN CHINA **Xiaoxi Huang**, *China*	
08:38-08:42	PHARMACOKINETIC (PK) MODELLING OF HP-HMG VERSUS RECOMBINANT LUTROPIN ALFA AND FOLLITROPIN ALFA **Daniël M. Jonker**, *Denmark*	

ART/IVF/INFERTILITY: ANDROLOGY	
08:42-08:46	RELATIONSHIPS BETWEEN FUNCTIONAL SPERM TESTS AND CONVENTIONAL SEMEN PARAMETERS: A REAL-WORLD ANDROLOGICAL ANALYSIS **Nabil Sayme**, *Germany*
ART/IVF/INFERTILITY: EMBRYOLOGY	
08:46-08:50	SHOULD A POOR-QUALITY EUPLOID BLASTOCYST BE DISCARDED? LIVE BIRTH ACCORDING TO ASEBIR CATEGORY VERSUS GARDNER COMPONENTS IN 695 SINGLE TRANSFERS **Valeria Aguirre Cavazo**, *Mexico*
ART/IVF/INFERTILITY: FERTILITY PRESERVATION	
08:50-08:54	OOCYTE VITRIFICATION IN TRANSGENDER MEN: A FOUR-PATIENT SERIES AT A PUBLIC TERTIARY REPRODUCTIVE MEDICINE UNIT **Eleazar Bravo Moreno**, *Spain*
ART/IVF/INFERTILITY: INFERTILITY/ENDOCRINOLOGY	
08:54-08:58	ANTI-MÜLLERIAN HORMONE AS A DIAGNOSTIC BIOMARKER FOR POLYENDOCRINE METABOLIC OVARY SYNDROME: ASSOCIATION WITH BODY MASS INDEX **Joon Cheol Park**, *South Korea*
ART/IVF/INFERTILITY: IVF CASE REPORT / STUDY	
08:58-09:02	PELVIC TUBERCULOSIS AS A CAUSE OF PRIMARY AMENORRHEA AND INFERTILITY: A CASE REPORT **Steffi Naomi Santos**, *Philippines*
ART/IVF/INFERTILITY: IVF TECHNOLOGICAL INNOVATIONS	
09:02-09:06	DETERMINANTS OF EMBRYO EUPLOIDY AND ESTIMATION OF MII OOCYTE REQUIREMENTS: A MULTICENTRE PGT-A STUDY **Olga Tepla**, *Czech Republic*
ART/IVF/INFERTILITY: UTERINE PATHOPHYSIOLOGY	
09:06-09:10	LOSS OF LACTOBACILLUS CRISPATUS AS A KEY FACTOR IN RECURRENT VULVOVAGINAL CANDIASIS: TRANSLATIONAL EVIDENCE FROM COHORT ANALYSIS AND TARGETED MICROBIOME RESTORATION **Jose A. Horcajadas**, *Spain*
09:10-09:14	LACTOBACILLUS DOMINANCE AND DYSBIOSIS IN THE ENDOMETRIAL MICROBIOME OF PERUVIAN FERTILITY PATIENTS **Jose A. Horcajadas**, *Spain*
GYNECOLOGY: GYN CASE REPORT / STUDY	
09:14-09:18	BEYOND OBESITY: GYNECOLOGIC CHALLENGES IN ADOLESCENT GIRLS WITH PRADER-WILLI SYNDROME **Juste Kazlauskaite**, *Lithuania*
09:18-09:22	BEYOND PELVIC DISEASE: SUSPECTED THORACIC ENDOMETRIOSIS WITH CATAMENIAL PNEUMOTHORAX **Sabina Tinjic**, *Bosnia and Herzegovina*
09:22-09:26	NON-SEXUALLY TRANSMITTED TUBO-OVARIAN ABSCESS CAUSED BY EDWARDSIELLA TARDA : A CASE REPORT AND REVIEW OF LITERATURE **Ma. Isabelle Tagarao**, *Philippines*
09:26-09:30	UTERINE ARTERY PSEUDOANEURYSM AFTER CAESAREAN DELIVERY: A RARE CAUSE OF LIFE-THREATENING HEMORRHAGE **Andreia Mota de Sousa**, *Portugal*
09:30-09:34	IMMEDIATE POSTPARTUM NEXPLANON AS AN ALTERNATIVE TO PERMANENT STERILIZATION - A CASE REPORT AND DISCUSSION **Frederick Eruo**, *USA*
GYNECOLOGY: GYN OTHER	
09:34-09:38	NATURALLY OCCURRING ANTI-HCG AND ANTI-TSH IGG ANTIBODIES IN PATIENTS WITH OVARIAN CYSTS **Tatia Chomakhidze**, *Georgia*
GYNECOLOGY: GYN TECHNOLOGICAL INNOVATIONS	
09:38-09:42	DIGITAL HEALTH INTERVENTIONS TO ENDOMETRIOSIS: A SCOPING REVIEW **Swathi Nayak Ammunje**, *India*
GYNECOLOGY: GYNECOLOGICAL ONCOLOGY	
09:42-09:46	A SINGLE SUBTLE CLUE: PERSISTENT WATERY VAGINAL DISCHARGE UNMASKING PRIMARY FALLOPIAN TUBE CARCINOMA - A CASE REPORT **Franz Jordaine Milla**, *Philippines*
GYNECOLOGY: GYNECOLOGY	
09:46-09:50	*cancelled*
ART/IVF/INFERTILITY: CLINICAL ART/IVF	
09:50-09:54	OOCYTE AND EMBRYO QUALITY IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER PLANNING ASSISTED REPRODUCTIVE TECHNOLOGY (ART) TREATMENT **Lida Stepanyan**, *Russia*

E-Posters for Viewing

ART/IVF/INFERTILITY

ANDROLOGY

WITHIN-SUBJECT COMPARISON OF SEMEN PARAMETERS AND ART OUTCOMES BEFORE AND AFTER CLOMIPHENE CITRATE TREATMENT IN MEN WITH OLIGOZOOSPERMIA
Kurumi Iwaki, *Japan*

CLINICAL ART/IVF

PRE-OPU PROGESTERONE AS A MARKER OF FOLLICULAR READINESS AND ITS ASSOCIATION WITH OOCYTE YIELD AND EMBRYO OUTPUT IN IVF CYCLES
Jaeil Bang, *South Korea*

IN VITRO FERTILIZATION CHARACTERISTICS AND CLINICAL OUTCOMES IN A SINGLE FERTILITY CENTER IN DAVAO CITY, PHILIPPINES: A RETROSPECTIVE, CROSS-SECTIONAL, DESCRIPTIVE STUDY
Khristine Rosemarie Bunda, *Philippines*

LOW ANTI-MÜLLERIAN HORMONE IS NOT ASSOCIATED WITH MISCARRIAGE IN CUMULATIVE IVF/ICSI PREGNANCIES (FRESH AND FROZEN TRANSFERS): A COMPREHENSIVE ANALYSIS OF 847 PREGNANCIES
Maria Carrera, *Spain*

CESAREAN DELIVERY IN PREGNANCIES CONCEIVED VIA IN VITRO FERTILIZATION: A COMPARATIVE STUDY OF A SINGLE-CENTER COHORT AND NATIONWIDE DATA
Maria Carrera, *Spain*

THE EFFECT OF COMPLETE ZONA PELLUCIDA REMOVAL AFTER WARMING ON CLINICAL OUTCOMES IN PGT-A FROZEN EMBRYO TRANSFER CYCLES
Sungwook Chun, *South Korea*

DETECTION OF GENITAL TUBERCULOSIS IN INFERTILE WOMEN OF INDIAN POPULATION
Shalini Gainder, *India*

WHY DOES ONE EMBRYO BECOME TWO? A 10-YEAR MULTICENTER RETROSPECTIVE STUDY OF OVER 134000 TRANSFERS
Noemi Galindo, *Spain*

TELOMERE-RELATED GENE EXPRESSION IN PERIPHERAL BLOOD MONONUCLEAR CELLS AFTER MILD VERSUS CONVENTIONAL OVARIAN STIMULATION IN WOMEN WITH LOW OVARIAN RESERVE
Enrique Garcia-Lopez, *Spain*

COST-MINIMIZATION ANALYSIS OF MERIOFERT® VERSUS MENOPUR® FOR CONTROLLED OVARIAN STIMULATION IN SPAIN
Nuria Garcia-Munoz, *Spain*

PREVALENCE, MANAGEMENT AND REPRODUCTIVE OUTCOME OF CHRONIC ENDOMETRITIS IN RECURRENT IMPLANTATION FAILURE
Antonios Gkountis, *Greece*

SYNTHETIC-IMAGE PRETRAINING FOR AUTOMATED CLASSIFICATION OF UTERINE FINDINGS ON HYSTEROSALPINGOGRAPHY
Yeon Hee Hong, *South Korea*

IMPACT OF ADDITIONAL EMBRYO WARMING BEYOND NUMBER TRANSFERRED ON PREGNANCY OUTCOMES IN CYCLES WITHOUT PREIMPLANTATION GENETIC TESTING
Yun Jung Hur, *South Korea*

OOCYTE MATURITY FOLLOWING HCG-ONLY VERSUS DUAL TRIGGER IN POOR OVARIANRESPONDERS OF ADVANCED MATERNAL AGE
Habriella Matviiv, *Ukraine*

INTRAUTERINE PLATELET-RICH PLASMA AS A STRATEGY TO IMPROVE ENDOMETRIAL RECEPTIVITY AND BIOCHEMICAL PREGNANCY RATES IN ASSISTED REPRODUCTION
Brenda Olazagasti, *Mexico*

CAN YOU EXPECT THE SAME AGAIN? AGE PREDICTS POORER REPEAT OOCYTE YIELD AFTER A SATISFACTORY FIRST RESPONSE
Thanos Papathanasiou, *United Kingdom*

DIFFERENTIAL RESPONSE TO INTRAOVARIAN LEUKOCYTE-RICH PLATELET-RICH PLASMA ACCORDING TO IVF FAILURE PHENOTYPE IN SEVERE DIMINISHED OVARIAN RESERVE: A SELF-CONTROLLED PILOT STUDY
Juhee Park, *South Korea*

NUMBER OF FOLLICLES ≥17 MM AND PREGNANCY OUTCOMES AFTER INTRAUTERINE INSEMINATION: A RETROSPECTIVE ANALYSIS OF 7,689 CYCLES
Rocio Sanchez Ruiz, *Spain*

INDIVIDUALIZED SERUM PROGESTERONE-GUIDED TIMING OF EMBRYO TRANSFER IN HORMONE-REPLACED FROZEN EMBRYO TRANSFER
Sangeeta Sinha, *India*

OUTCOMES OF SEQUENTIAL EMBRYO TRANSFER, DAY 3 AND DAY 5, FOR PATIENTS WITH UNEXPLAINED RECURRENT IMPLANTATION FAILURE (RIF); PRELIMINARY STUDY
Ali Zeyad, *Saudi Arabia*

SERUM ANTI-MÜLLERIAN HORMONE PREDICTS OVARIAN RESPONSE BUT NOT CUMULATIVE LIVE BIRTH IN IVF/ICSI: A RETROSPECTIVE COHORT OF 2,332 CYCLES
Maria Macedo, *Spain*

EMBRYOLOGY

ET-DAY PROGESTERONE, ENDOMETRIAL PREPARATION, AND FIRST EMBRYO TRANSFER SUCCESS IN REAL-WORLD PGT-A CYCLES
Jaeil Bang, *South Korea*

PREGNANCY OUTCOME USING EMBRYOGLUE IN PATIENTS WITH PREVIOUS FAILED IMPLANTATION UNDERGOING FROZEN-THAWED EMBRYO TRANSFER: A RETROSPECTIVE STUDY
Shaw Ni Amy Lee, *Singapore*

DIFFERENTIAL EXPRESSION OF MIR-99A AND MIR-143 IN SPERM AND FOLLICULAR FLUID: IMPLICATIONS FOR EMBRYO QUALITY IN ASSISTED REPRODUCTIVE TECHNOLOGY
Eleni Nazou, *Greece*

BEYOND THE BINARY FERTILIZATION CHECK: DEVELOPMENTAL OUTCOMES AND RECOVERABLE POTENTIAL ACROSS ATYPICAL PRONUCLEAR PHENOTYPES IN 20,633 OOCYTES
Hin Yan Wong, *Singapore*

FERTILITY PRESERVATION

FERTILITY PRESERVATION IN A PUBLIC TERTIARY HOSPITAL: A FIVE-YEAR OBSERVATIONAL STUDY OF 106 WOMEN REFERRED AND 95 OVARIAN STIMULATION CYCLES
Elisabet Barahona, *Spain*

VAGINAL NATURAL PROGESTERONE FOR PROGESTIN-PRIMED OVARIAN STIMULATION IN OOCYTE DONORS: A RETROSPECTIVE PROOF-OF-CONCEPT STUDY
Miguel Gallardo, *Spain*

OOCYTE VITRIFICATION FOR FERTILITY PRESERVATION IN BENIGN NON-ENDOMETRIOSIC GYNECOLOGICAL PATHOLOGY
Eleazar Bravo Moreno, *Spain*

ENDOMETRIOSIS VERSUS OTHER BENIGN GYNECOLOGICAL PATHOLOGIES IN FERTILITY PRESERVATION:
Yolanda Gil Gonzalez, *Spain*

FERTILITY PRESERVATION IN ENDOMETRIOSIS: EXPERIENCE AND OUTCOMES AT A PUBLIC TERTIARY REFERRAL CENTER
Yolanda Gil Gonzalez, *Spain*

FERTILITY PRESERVATION IN FEMALE ONCOLOGY PATIENTS: EXPERIENCE FROM A TERTIARY PUBLIC HOSPITAL
Yolanda Gil Gonzalez, *Spain*

MALE AND FEMALE FERTILITY PRESERVATION (INCLUDING MEDICAL INDICATIONS, ELECTIVE GAMETE CRYOPRESERVATION, AND LABORATORY TECHNIQUES)
Vyacheslav Lokshin, *Kazakhstan*

REPRODUCTIVE OUTCOMES OF WOMEN WITH SECONDARY INFERTILITY FOLLOWING ENDOSCOPIC MANAGEMENT OF ISTHMOCELE: A SYSTEMATIC REVIEW
Pavlos Papadopoulos, *Greece*

FERTILITY PRESERVATION BEYOND OOCYTE VITRIFICATION: FERTILITY-SPARING SURGERY IN OVARIAN CLEAR CELL CARCINOMA
Barbara Romero Guadix, *Spain*

EMBRYO TRANSFER STRATEGIES AND THE RISK OF MULTIPLE PREGNANCY IN ASSISTED REPRODUCTION
Barbara Romero Guadix, *Spain*

TELOMERIC AND EPIGENETIC ALTERATIONS INDUCED BY SPERM CRYOPRESERVATION IN MALE CANCER PATIENTS: IMPLICATIONS FOR FERTILITY PRESERVATION
Mona Sharma, *India*

INFERTILITY/ENDOCRINOLOGY

KNOWLEDGE AND PRACTICES ON POLYCYSTIC OVARY SYNDROME (PCOS) AMONG OBSTETRICIAN-GYNECOLOGIST (OB-GYN) IN REGION II, PHILIPPINES: CROSS-SECTIONAL STUDY FROM JANUARY TO FEBRUARY, 2026
Kathleen Joy Chy, *Philippines*

THE IMPACT OF CLIMATE CHANGE ON REPRODUCTIVE HEALTH AND AN EXAMINATION OF THE PERSPECTIVES, EXPERIENCES, AND COPING FACTORS OF WOMEN WITH INFERTILITY: A PHENOMENOLOGICAL STUDY
Tugba Kanarya, *Türkiye*

IMPLICATIONS OF THE NEW TERMINOLOGY FOR POLYENDOCRINE METABOLIC SYNDROME ON INFERTILITY CARE
Tugba Kanarya, *Türkiye*

BEYOND LOW AMH: CLINICAL AND OVARIAN RESERVE FEATURES ASSOCIATED WITH ELEVATED FSH IN WOMEN PRESENTING FOR FERTILITY EVALUATION
Namita Kotia, *India*

CHARACTERISTICS OF ADAPTIVE REACTIONS OF THE AUTONOMIC NERVOUS SYSTEM IN WOMEN WITH INFERTILITY
Nargiza Magzumova, *Uzbekistan*

MATERNAL AGE AND OUTCOMES OF IN VITRO FERTILIZATION AND INTRACYTOPLASMIC SPERM INJECTION: A RETROSPECTIVE ANALYSIS FROM 2010 TO 2025
Rocio Sanchez Ruiz, *Spain*

REPRODUCTIVE OUTCOMES AFTER IVF IN WOMEN AGED 40 YEARS OR OLDER: A RETROSPECTIVE ANALYSIS FROM 2023 TO 2025
Rocio Sanchez Ruiz, *Spain*

STOP GNRH AGONIST/ANTAGONIST PROTOCOL IN IVF/ICSI: EXPERIENCE AND REPRODUCTIVE OUTCOMES IN CLINICAL PRACTICE
Bárbara Romero Guadix, *Spain*

ENDOCRINE PROFILING AND ACMG/AMP-GUIDED GENETIC VARIANT INTERPRETATION IN PCOS WITH ADENOMYOSIS AMONG WOMEN UNDERGOING IVF/ICSI
Sunita Sharma, *India*

EMPIRICAL STUDY OF OVARIAN RESPONSE AND LIVE BIRTH RATES IN REPRODUCTIVE OUTCOMES OF WOMEN WITH POLYCYSTIC OVARY SYNDROME UNDERGOING IVF
Vasileios Tsilionis, *Greece*

EFFECTS OF GLP-1 RECEPTOR AGONISTS AND GIP ON FOLLICULAR DEVELOPMENT AND OVERALL REPRODUCTIVE HEALTH IN INSULIN RESISTANT FEMALE MOUSE AND RAT MODELS: A SYSTEMATIC REVIEW AND META-ANALYSIS
Giovana Vesentini, *Brazil*

IVF CASE REPORT / STUDY

COMPLETE HYDATIDIFORM MOLE AFTER TRANSFER OF PGT-A–REPORTED EUPLOID BLASTOCYSTS GENERATED BY ICSI: A CASE REPORT
Jieun Ko, *South Korea*

OBSTRUCTIVE PYELONEPHRITIS SECONDARY TO OVARIAN HYPERSTIMULATION FOLLOWING OOCYTE RETRIEVAL: A RARE COMPLICATION OF IVF
Christiane Saade, *Lebanon*

DEFECT OF MTHFR IN A PATIENT WITH TEN HABITUAL MISSCARRIAGES: A CASE REPORT
Vesna Soldo, *Serbia*

IVF OTHER

THE PSYCHOLOGICAL IMPACT OF IN VITRO FERTILIZATION (IVF): A GENDER SYSTEMATIC REVIEW
Maria Grammenou, *Greece*

MAPPING THE LANDSCAPE OF ARTIFICIAL INTELLIGENCE IN INFERTILITY TREATMENT: A BIBLIOMETRIC ANALYSIS (2011–2025)
Ji Hye Kim, *South Korea*

DEPRESSIVE SYMPTOMS AND PREGNANCY LOSS WITHOUT LIVE BIRTH AMONG KOREAN WOMEN: A CROSS-SECTIONAL ANALYSIS OF THE KOREA NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (KNHANES)
Whan Shin, *South Korea*

BODY MASS INDEX AFFECTS OOCYTE RETRIEVAL, EMBRYO QUALITY AND LIVE BIRTH OUTCOME IN IVF/ICSI: A REVIEW OF THE LITERATURE
Vasileios Tsilionis, *Greece*

IVF TECHNOLOGICAL INNOVATIONS

ARTIFICIAL INTELLIGENCE IN EMBRYO SELECTION AND REPRODUCTIVE OUTCOMES: DOES TECHNOLOGY IMPROVE CLINICAL DECISION MAKING?
Vasileios Tsilionis, *Greece*

REPRODUCTIVE GENETICS

AFTER EUPLOID EMBRYO SELECTION, DOES THE CLINICAL INDICATION FOR PGT-A STILL MATTER FOR LIVE BIRTH? 695 SINGLE FROZEN EMBRYO TRANSFERS
Valeria Aguirre, *Mexico*

PGT-A ON THE NEW ILLUMINA MISEQ I100 PLATFORM: FEASIBILITY AND CROSS-PLATFORM CONCORDANCE AFTER BLASTOCYST REBIOPSY
Aneta Stefaniak, *Poland*

FETOMATERNAL MEDICINE

FETAL MEDICINE

SINGLE FETAL DEATH IN TWIN PREGNANCY
Nurije Aliji, *North Macedonia*

SIRENOMELIA AT 21 WEEKS: PRENATAL SUSPICION AND POSTMORTEM CHARACTERIZATION OF A RARE LETHAL CONGENITAL MALFORMATION
Naida Guzonjic, *Bosnia and Herzegovina*

SEVERE FETAL NEUROLOGICAL INVOLVEMENT IN CONGENITAL CYTOMEGALOVIRUS INFECTION: A CASE REPORT
Catarina Oliveira, *Portugal*

PRENATAL DIAGNOSIS OF BECKWITH-WIEDEMANN SYNDROME [MOU1] ASSOCIATED WITH SEGMENTAL PATERNAL UNIPARENTAL DISOMY: A CASE REPORT
Marie Patris, *Belgium*

CONGENITAL EPULIS DIAGNOSED PRENATALLY AND MANAGED WITH THE EXIT PROCEDURE: A CASE REPORT
Maria Prat Om, *Spain*

ULTRA-LOW-DOSE CT IN THE DIAGNOSIS OF SKELETAL DYSPLASIAS
Maria Prat Om, *Spain*

BEYOND ISOLATED FETAL INTRA-ABDOMINAL UMBILICAL VEIN VARIX: IMPACT OF CUMULATIVE ULTRASOUND FINDINGS AND ADVERSE OBSTETRIC HISTORY ON SUSPECTING HIDDEN PATHOLOGY
Maria Prat Om, *Spain*

MYELOSCHISIS WITHIN THE SPECTRUM OF OPEN SPINA BIFIDA: DIAGNOSIS, FETOSCOPIC MANAGEMENT AND A CLINICAL CASE
Maria Prat Om, *Spain*

PROGRESSIVE FETAL VENTRICULOMEGALY WITH SUBEPENDYMAL CYSTS AND SUSPECTED NEURONAL MIGRATION DISORDER IN A CONSANGUINEOUS COUPLE
Maria Prat Om, *Spain*

RECURRENT NEONATAL DEATHS IN A CONSANGUINEOUS COUPLE: PRENATAL IDENTIFICATION OF FAMILIAL MOCS2 AND ACTA1 VARIANTS
Maria Prat Om, *Spain*

EARLY VS LATE FGR: TWO ENTITIES, TWO PROGNOSIS
Rita Mesquita Pinto, *Portugal*

FMM CASE REPORT / STUDY

RECOGNIZING POSTERIOR REVERSIBLE ENCEPHALOPATHY (PRES) IN PREGNANCY- PRINCIPLES OF MANAGEMENT
Frederick Eruo, *USA*

DISCORDANT CLOSED SPINA BIFIDA IN DICHORIONIC TWINS AFTER DONOR-OOCYTE IVF : A CASE REPORT
Spyridoula Kasioni, *Greece*

THE VALUE OF PARENTAL GENOTYPING AND GENETIC COUNSELING IN FAMILIAL 22Q11.21 MICRODUPLICATION: FROM PRENATAL DIAGNOSIS TO LIVE BIRTH
Jieun Ko, *South Korea*

CLINICAL CROSSROADS: MANAGING THE OVERLAP BETWEEN TUBAL ABORTION AND ABDOMINAL PREGNANCY
Jomarisse Ramirez, *Philippines*

ABDOMINAL PREGNANCY: A RARE CASE SERIES
Karmina Santos, *Philippines*

POSTPARTUM PREECLAMPSIA COMPLICATED BY ACUTE PULMONARY EDEMA: A RARE CASE REPORT
Konstantinos Zacharis, *Greece*

FMM OTHER

NON-PHARMACOLOGİCAL APPROACHES İN POST-CESAREAN PAİN MANAGEMENT
Sevban Arslan, *Türkiye*

DIGITAL HEALTH LITERACY AND ATTITUDES TOWARD ARTIFICIAL INTELLIGENCE AMONG MIDWIFERY STUDENTS: IMPLICATIONS FOR FUTURE MATERNITY CARE
Burcu Avcibay Vurgec, *Türkiye*

ADHERENCE TO THE ENHANCED RECOVERY AFTER SURGERY PROTOCOL FOR CESAREAN DELIVERY: EVALUATION OF CLINICAL PRACTICE AT A PRIVATE HOSPITAL IN MONTEVIDEO, URUGUAY
Gerardo Vitureira, *Uruguay*

GROWTH, DEVELOPMENT, AND ENDOCRINE OUTCOMES IN CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: A KAZAKHSTAN CASE–CONTROL STUDY
Sevara Ilmuratova, *Kazakhstan*

DIFFERENTIAL DIAGNOSIS BETWEEN COMPLETE HYDATIDIFORM MOLE WITH COEXISTING FETUS AND PLACENTAL DYSPLASIA: FOCUSING ULTRASOUND AND MR IMAGING FINDINGS
Mi Jin Song, *South Korea*

CHANGES IN BIRTH RATES FOLLOWING THE COVID-19 PANDEMIC: EVIDENCE FROM A GREEK SECONDARY HOSPITAL
Konstantinos Zacharis, *Greece*

GENETICS

WHEN ISOLATED SMALL FETAL SIZE INDICATES A MONOGENIC DISORDER: A CASE OF BOHRING–OPITZ SYNDROME
Bojana Petrovic, *Serbia*

HIGH RISK PREGNANCY

TEMPORAL CHANGES IN THROMBOELASTOGRAPHY AND CONVENTIONAL COAGULATION PARAMETERS ACCORDING TO HEMORRHAGE SEVERITY IN PLACENTA ACCRETA SPECTRUM
Gauri Bapayeva, *Kazakhstan*

FROM 32 MYOMAS TO MOTHERHOOD: SUCCESSFUL IVF PREGNANCY AFTER MULTIPLE MYOMECTOMIES
Naida Guzonjic, *Bosnia and Herzegovina*

PREGNANCY AGAINST THE ODDS: SUCCESSFUL MATERNAL AND NEONATAL OUTCOME IN A WOMAN WITH SECONDARY FANCONI SYNDROME
Naida Guzonjic, *Bosnia and Herzegovina*

EFFECTS OF GESTATIONAL HYPOTHYROIDISM AND HYPOTHYROXINEMIA ON LIPID METABOLISM
Minhui Hu, *China*

ACUTE ABDOMINAL PAIN IN PREGNANCY: WHEN DO WE CONSULT THE GENERAL SURGEON?
Spyridoula Kasioni, *Greece*

CHARACTERISTICS OF THE CYTOKINE RESPONSE IN PREGNANT WOMEN WITH GESTATIONAL DIABETES MELLITUS
Diloram Musakhodjaeva, *Uzbekistan*

CONSERVATIVE MANAGEMENT OF ECTOPIC PREGNANCIES IN ATYPICAL LOCATIONS
Rocio Sanchez Ruiz, *Spain*

IS MATERNAL AGE A DIAGNOSIS? OBSTETRIC INTERVENTION AND OUTCOMES AFTER 40
Anaisa Simoes, *Portugal*

HEPATITIS E SEROPREVALENCE IN PREGNANCY
Manju Lata Verma, *India*

QUANTIFYING MATERNAL RISKS OF DENGUE DURING PREGNANCY: A SYSTEMATIC REVIEW AND PROPORTIONAL META-ANALYSIS
Giovana Vesentini, *Brazil*

MATERNAL AND PERINATAL OUTCOMES IN PREGNANT WOMEN WITH HEART DISEASE: A CASE-CONTROL STUDY
Irene Aracil Moreno, *Spain*

INTRAUTERINE TRANSFUSION AS A CRITICAL INTERVENTION IN THE MANAGEMENT OF FETAL ANEMIA
Holly Mae Tandoc, *Philippines*

LABOR AND DELIVERY

POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME PRESENTING AS ACUTE BILATERAL CORTICAL BLINDNESS IN A PUERPERAL PATIENT WITH ECLAMPSIA: A CASE REPORT
Maria Teresa Castillo, *Spain*

POSTPARTUM ECLAMPSIA AND REVERSIBLE CEREBRAL VASOCONSTRICTION SYNDROME OVERLAP PRESENTING WITH CORTICAL SUBARACHNOID HEMORRHAGE: A COMPLEX DIAGNOSTIC AND THERAPEUTIC CHALLENGE
Maria Teresa Castillo, *Spain*

OBSTETRIC MANAGEMENT IN DIET-CONTROLLED GESTATIONAL DIABETES DESPITE COMPARABLEPERINATAL OUTCOMES
Ivka Djakovic, *Switzerland*

METABOLIC PHENOTYPE AND ACTIVE LABOUR MANAGEMENT IN DIET-CONTROLLED GESTATIONALDIABETES WITH COMPARABLE NEONATAL OUTCOMES
Ivka Djakovic, *Switzerland*

TRANSFER OF DRUGS THROUGH THE FETOPLACENTAL MEMBRANE AND PHARMACOKINETICS OF DRUGS IN PREMEDICATION IN ELECTIVE CAESAREAN SECTIONS
Zorica Grujic, *Serbia*

EFFICACY OF SINGLE-DOSE CEFAZOLIN WITH INTRANASAL POVIDONE-IODINE VERSUS CEFAZOLIN ALONE FOR PREVENTION OF SURGICAL SITE INFECTION IN CESAREAN SECTION
Sherina Huerto, *Philippines*

INTRA-CESAREAN MYOMECTOMY, AN EXCEPTIONAL INDICATION TO ALLOW FOR HYSTERORRHAPHY – A CASE REPORT
Marta Leitao Afonso, *Portugal*

BRIDGING THE KNOWLEDGE-ATTITUDE GAP: A STUDY ON DECISION-MAKING FOR DELIVERY AFTER CESAREAN SECTION IN A PHILIPPINE TERTIARY HOSPITAL AND A ROADMAP FOR A NATIONAL COUNSELING INTERVENTION
Debora Bianca Lorenzana Opulencia, *Philippines*

CROSS-SECTIONAL STUDY CORRELATING MATERNAL HBA1C LEVELS TO PREGNANCY OUTCOMES IN A TERTIARY HOSPITAL FROM FEBRUARY TO MARCH 2026
Maritoni Luna, *Philippines*

KEY PELVIC BONY INDICES TO CAPTURE INTERINDIVIDUAL VARIABILITY: A SCOPING REVIEW BASED ON MULTIMODAL IMAGING
Georgia Martensen, *France*

EFFECTS OF SEXUAL COUNSELLING ON SEXUAL FUNCTION IN POSTPARTUM WOMEN: A LITERATURE REVIEW
Neslihan Ylmaz Sezer, *Türkiye*

MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT

BILATERAL TUBO-OVARIAN ABSCESS IN PREGNANCY: CONSERVATIVE MANAGEMENT OR SURGERY WHEN IMAGING IS INCONCLUSIVE?
Ilma Dadic, *Bosnia and Herzegovina*

ARE BELIEFS ABOUT PAIN IMPORTANT? BELIEFS ABOUT PAIN AS A DETERMINANT OF SELF-EFFICACY FOR VAGINAL BIRTH AMONG PREGNANT WOMEN: A CROSS-SECTIONAL STUDY
Mevra Eksin, *Türkiye*

HYPERTENSIVE DISORDERS OF PREGNANCY PREDISPOSE SMALL VULNERABLE NEWBORNS: A CHINA BIRTH COHORT STUDY
Zhan Li, *China*

CLINICAL SIGNIFICANCE OF ATYPICAL AMNIOTIC FLUID EMBOLISM
Jeong-In Yang, *South Korea*

EARLY PRENATAL DIAGNOSIS OF COMPLICATED GASTROSCHISIS CASE REPORT
Ana Devic, *Serbia*

FOCAL NECROSIS OF THE UTERUS AS A RESULT OF B-LINCH COMPRESSION SUTURE CASE REPORT
Ana Devic, *Serbia*

MULTIFETAL PREGNANCY

PREGNANCY OUTCOMES IN TWIN GESTATIONS COMPLICATED BY GESTATIONAL DIABETES MELLITUS: A PROSPECTIVE COHORT STUDY FROM SOUTH INDIA
Haritha Sagili, *India*

ASSOCIATION BETWEEN PREGNANCY-ASSOCIATED PLASMA PROTEIN-A AND CROWN-RUMP LENGTH IN TWIN PREGNANCIES DURING FIRST-TRIMESTER SCREENING
Athina Samara, *Greece*

WHEN TWINS DIVERGE: DOES BIRTHWEIGHT DISCORDANCE IDENTIFY A HIGH-RISK PREGNANCY OR THE HIGH-RISK TWIN?
Anaisa Simoes, *Portugal*

A CASE STUDY ON SELECTIVE FETAL GROWTH RESTRICTION: DIAGNOSIS, MANAGEMENT, AND OUTCOMES
Nashreen Dale Salih, *Philippines*

GYNECOLOGY

GYN CASE REPORT / STUDY

WHEN GENDER AND GENETICS DIVERGE: A CASE OF ANDROGEN INSENSIVITY SYNDROME IN ADOLESCENCE
Meggyrose Apalisok, *Philippines*

UNVEILING A HIDDEN ANOMALY: A CASE OF CONCOMITANT TRANSVERSE VAGINAL SEPTUM AND IMPERFORATE HYMEN
April Diane Aviguetero, *Philippines*

OVARIAN TERATOMA ASSOCIATED ANTI-N-METHYL-D-ASPARTATE ENCEPHALITIS IN A FILIPINO NULLIGRAVID
Lauren Anne C. Cancio, *Philippines*

GIANT OVARIAN TERATOMA PRESENTING AS ACUTE ABDOMINAL PAIN AND HYPOVOLEMIC SHOCK IN AN ADOLESCENT: A CASE REPORT
Maite Castillo Vico, *Spain*

VAGINAL IMPLANTATION OF RETAINED PRODUCTS OF CONCEPTION PRESENTING ASMASSIVE VAGINAL HEMORRHAGE AFTER MEDICAL ABORTION
Maite Castillo Vico, *Spain*

ABNORMAL UTERINE BLEEDING: A MULTIDISCIPLINARY DIAGNOSTIC SUCCESS-CASE OF ENDOMETRIOD ADENOCARCINOMA WITH LYNCH SYNDROME DIAGNOSED WHILE INVESTIGATING CHRONIC ANAEMIA
Sonali Chonkar, *Singapore*

EFFECTS OF A MONOPHASIC HORMONAL CONTRACEPTIVE WITH NORGESTIMATE + ETHINYLESTRADIOL IN ITALIAN WOMEN: PRELIMINARY RESULTS OF A MULTICENTER, PROSPECTIVE, OPEN-LABEL, NON-COMPARATIVE STUDY
Sara De Rosa, *Italy*

STAGED MULTIDISCIPLINARY MANAGEMENT OF A RECURRENT OBSTETRIC RECTOVAGINAL FISTULA FOLLOWING A FOURTH-DEGREE PERINEAL TEAR
Martine Dehandschutter, *Belgium*

CLINICAL PRESENTATION OF UTERINE TUMOR RESEMBLING OVARIAN SEX-CORD TUMORS: A CASE REPORT
Tinu Afolabi, *USA*

AN UNEXPECTED DIAGNOSIS: SCLERODERMA PRESENTING AS A BREAST NODULE
Ana María Muñoz Ledesma, *Spain*

DEEP-INFILTRATING ENDOMETRIOSIS CAUSING ACUTE MECHANICAL INTESTINAL OBSTRUCTIONWITHOUT INTESTINAL INVASION: A CASE REPORT
Junghyun Park, *South Korea*

ADENOMYOMATOUS ENDOMETRIAL POLYP (TYPICAL POLYPOID ADENOMYOMA) PROLAPSING THROUGH THE CERVIX IN A 19-YEAR-OLD WOMAN: A RARE CASE REPORT
Christiane Saade, *Lebanon*

GROWING TERATOMA SYNDROME IN A 35-YEAR-OLD FILIPINO-JAPANESE NULLIGRAVID
Tiffany Jill Te, *Philippines*

AN UNEXPECTED BARRIER TO RECOMMENDED ONCOLOGIC CARE
Aimee Chuin Ai Teong, *Singapore*

MIXED ADENONEUROENDOCRINE CARCINOMA OF THE VAGINAL INTROITUS: A DIAGNOSTIC CHALLENGE WITH UNCERTAIN PRIMARY ORIGIN
Orsalia Toutouza, *United Kingdom*

MULLERIAN DUCT ANOMALIES AND IPSILATERAL RENAL AGENESIS: THE CLINICAL CHALLENGES OF OHVIRA SYNDROME AND ITS ATYPICAL VARIANTS
Maria Lourdes Cabling, *Philippines*

GYN OTHER

PILOT VALIDATION OF THE IOTA ADNEX MODEL FOR PREDICTING OVARIAN MALIGNANCY: CORRELATION WITH HISTOPATHOLOGIC RESULTS IN A PHILIPPINE TERTIARY HOSPITAL
Jenelle Rayza Bulaong, *Philippines*

GUIDING INTIMATE GYNAECOLOGICAL EXAMINATION: A QUALITATIVE STUDY EXPLORING RESIDENT DOCTOR`S EXPERIENCES ON SUPERVISING MEDICAL STUDENTS PERFORMING PELVIC EXAMINATIONS ON PATIENTS
Sonali Chonkar, *Singapore*

BEYOND BACTERIAL VAGINOSIS: THE ROLE OF GENITAL MICROBIOTA DYSBIOSIS IN CHRONIC PELVIC PAIN AND FEMALE SEXUAL DYSFUNCTION
Maria Magdalena Manolea, *Romania*

DETERMINATION OF MICROBIOTA AWARENESS AND HEALTH LITERACY IN WOMEN OF REPRODUCTIVE AGE: A DESCRIPTIVE AND CROSS-SECTIONAL STUDY
Evsen Nazik, *Türkiye*

GYN TECHNOLOGICAL INNOVATIONS

DOES THE PAEUDOANEURYSM CAUSE POSTOPERATIVE VAGINAL VAULT BLEEDING?
Kyoung A Kim, *South Korea*

ACCEPTABILITY OF USING MOBILE APPLICATION FOR FAMILY PLANNING AMONG FILIPINO WOMEN IN A TERTIARY HOSPITAL IN BATANGAS
Romina Roxanne Renia, *Philippines*

GYNECOLOGICAL ONCOLOGY

REPRODUCTIVE AND ONCOLOGICAL OUTCOMES AFTER FERTILITY-SPARING SURGERY FOR BORDERLINE OVARIAN TUMORS: A SYSTEMATIC REVIEW
Eleni Anagnostou, *Greece*

UNRAVELLING THE ENIGMA: A CASE OF OVARIAN GERM CELL TUMOR AND PRECOCIOUS PUBERTY IN A 7-YEAR-OLD GIRL
Dianelle Dagalea, *Philippines*

ASSOCIATION BETWEEN HEALTH-RELATED QUALITY OF LIFE, DEPRESSION AND POST-TRAUMATIC STRESS DISORDER SYMPTOMS IN WOMEN WITH BREAST CANCER
Anastasia Karagiannaki, *Greece*

BEYOND THE ORDINARY: A RARE CASE OF OVARIAN BORDERLINE BRENNER TUMOR COEXISTING WITH MUCINOUS BORDERLINE TUMOR
Alyssa Lambino, *Philippines*

CLINICODEMOGRAPHIC PROFILE OF ENDOMETRIAL CANCER PATIENTS IN A TERTIARY GOVERNMENT HOSPITAL: A DESCRIPTIVE RETROSPECTIVE STUDY
Robelle Mosende, *Philippines*

HEAT SHOCK PROTEINS IN OVARIAN CANCER: A SCOPING REVIEW OF DIAGNOSTIC, PROGNOSTIC AND THERAPEUTIC IMPLICATIONS
Athina Samara, *Greece*

DEPRESSION, POST-TRAUMATIC STRESS, AND QUALITY OF LIFE IN WOMEN WITH GYNECOLOGICAL CANCER: A MULTICENTER CROSS-SECTIONAL STUDY
Panteleimon Sofitis, *Greece*

GYNECOLOGY

A NOVEL APPROACH TO MINIMALLY INVASIVE MANAGEMENT OF COMPLETE SEPTATE UTERUS WITH DUPLICATED CERVICES AND NON-OBSTRUCTIVE LONGITUDINAL VAGINAL SEPTUM
Aikaterini Deliveliotou, *Greece*

FIBROID EXPULSION AFTER SONATA® TREATMENT MIMICKING ENDOMETRIAL MALIGNANCY: A CASE REPORT
Ivka Djakovic, *Switzerland*

SPONTANEOUS FIBROID EXPULSION AFTER SONATA® TREATMENT: A CASE SERIES OF SIX PATIENTS
Ivka Djakovic, *Switzerland*

DEVELOPMENT OF A RISK PREDICTION MODEL FOR ENDOMETRIAL CANCER IN WOMEN WITH POST MENOPAUSAL BLEEDING USING EPIDEMIOLOGICAL AND SONOGRAPHIC CHARACTERISTICS
Mariamma George, *Singapore*

CHEMOKINE PROFILE INDICATORS IN WOMEN WITH VARIOUS CLINICAL MANIFESTATIONS OF ADENOMYOSIS
Landish Isanbaeva, *Uzbekistan*

FEATURES OF PRO-INFLAMMATORY CYTOKINE SYNTHESIS IN WOMEN WITH UTERINE LEIOMYOMA
Lobar Ishmuratova, *Uzbekistan*

BRINGING ERAS TO THE OFFICE: A MULTIMODAL ANALGESIA AND SIX-POINT CERVICAL BLOCK PROTOCOL ACHIEVING NEAR-PAINLESS OPERATIVE HYSTEROSCOPY WITHOUT ANESTHESIA
Payam Katebi Kashi, *USA*

PATHOLOGICAL CONCORDANCE BETWEEN ENDOMETRIAL SAMPLING METHODS AND HYSTERECTOMY: INFLUENCE OF VAGINAL DELIVERY AND CLINICAL FACTORS
Eun Jin Lee, *South Korea*

ENDOMETRIAL RECEPTIVITY IN YOUNG WOMEN WITH CHRONIC ENDOMETRITIS AND ADVANCED REPRODUCTIVE AGE: ROLE OF PERSONALIZED PREPARATION
Vyacheslav Lokshin, *Kazakhstan*

CLINICAL AND BIOCHEMICAL DIFFERENCES BETWEEN ADOLESCENTS WITH PCOS AND HEALTHY AGE-MATCHED CONTROLS
Ilijana Mazibrada, *Serbia*

ENDOMETRIOSIS IN ADOLESCENCE: SURGICAL MANAGEMENT AND THE BALANCE BETWEEN DISEASE CONTROL, SURGICAL RADICALITY AND FERTILITY PRESERVATION
Ilijana Mazibrada, *Serbia*

FROM HEAVY MENSTRUAL BLEEDING TO BLOOD TRANSFUSION: A CASE SERIES OF SEVERE ADOLESCENT ABNORMAL UTERINE BLEEDING
Ilijana Mazibrada, *Serbia*

UTERUS DIDELPHYS ASSOCIATED WITH OBSTRUCTIVE VAGINAL ANOMALIES AND ANORECTAL MALFORMATIONS : A CASE REPORT
Ilijana Mazibrada, *Serbia*

RE-EVALUATING THE UTILITY OF SUBENDOMETRIAL ENHANCEMENT IN ASSESSING THE ENDOMETRIAL-MYOMETRIAL INTERFACE ON DYNAMIC CONTRAST-ENHANCED MRI
Min Hoan Moon, *South Korea*

IMPROVING MENOPAUSE CARE THROUGH A STRUCTURED HISTORY-TAKING PROFORMA: A QUALITY IMPROVEMENT PROJECT
Mouli Nandi, *United Kingdom*

EFFECTS OF EVENING PRIMROSE OIL ON MENOPAUSAL HOT FLASHES: A DOUBLE-BLIND RANDOMIZED CONTROLLED TRIAL IN A PRIVATE TERTIARY HOSPITAL
Rochere Aubrey Olabe, *Philippines*

AN ULCERATED VULVAL MASS IS NOT ALWAYS MALIGNANT: AN UNUSUAL CASE
Angsumita Pramanick, *Singapore*

A SYSTEMATIC REVIEW AND META-ANALYSIS ON THE EFFECTIVENESS AND SAFETY OF THE TOURNIQUET VASCULAR OCCLUSION METHOD FOR THE REDUCTION OF BLOOD LOSS DURING ABDOMINAL MYOMECTOMY
Hiyasmin Reyes, *Philippines*

VAGINAL NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY VERSUS LAPAROSCOPIC HYSTERECTOMY: A SYSTEMATIC REVIEW OF CURRENT EVIDENCE
Athina Samara, *Greece*

CLINICAL AND HEMATOLOGIC DETERMINANTS OF BLOOD VISCOSITY IN WOMEN UNDERGOING GYNECOLOGIC SURGERY
Mi Rae Shin, *South Korea*

LONG-TERM CHANGES IN UTERINE VOLUME AND CLINICAL OUTCOMES AFTER LNG-IUS INSERTION IN PERIMENOPAUSAL WOMEN WITH ADENOMYOSIS
Inhye Shin, *South Korea*

RISK-RESPONSIVE OR SOCIALLY TARGETED? UNDERSTANDING LARC PRESCRIPTION AFTER INDUCED ABORTION
Anaisa Simoes, *Portugal*

ADOLESCENTS SEEKING OBSTETRIC AND GYNECOLOGIC EMERGENCY CARE: INSIGHTS FROM A GREEK SECONDARY HOSPITAL
Konstantinos Zacharis, *Greece*

DETERMINING CANCER FEAR AND HEALTH ANXIETY IN HPV-POSITIVE WOMEN: A DESCRIPTIVE CROSS-SECTIONAL STUDY
Evsen Nazik, *Türkiye*

CATAMENIAL CYCLIC VOMITING SYNDROME RESPONDING TO LNG-IUS: A CASE REPORT
Criselda Sarile, *Philippines*

Abstracts



SPEAKER ABSTRACTS

IS EARLY MENOPAUSE A DIFFERENT ENTITY FROM POI?

Panagiotis Anagnostis, *Greece*

Premature ovarian insufficiency (POI), which affects 1%–3% of postmenopausal women, is associated with an increased risk of cardiovascular disease, mainly including fatal and non-fatal coronary heart disease (mostly attributed to increased incidence of cardiovascular risk factors, such as diabetes mellitus and arterial hypertension), heart failure and atrial fibrillation. POI is also associated with increased risk of fractures, due to osteoporosis and sarcopenia, as well as, cognitive impairment and depression. Early menopause (EM, defined as age at menopause <45 years), which covers 10% of the postmenopausal population, shares the same adverse health consequences and, in most cases, to the same degree, with POI. Moreover, women who experience EM are at increased all-cause mortality (relative risk 1.12, 95% confidence interval 1.03–1.21, according to an older meta-analysis), compared with those of age at menopause > 45 years. Therefore, a unifying term for EM and POI, such as 'premature menopause', may be proposed, using the age threshold of <45 years. This could provide a broader coverage of these women, substantiating the need for prompt administration of hormone replacement therapy (HRT) in women with EM, not for the sole purpose of vasomotor symptom relief (simply as 'menopausal hormone therapy'), but as a true 'HRT' to potentially reduce the risks mentioned above, covering all women with age at menopause <45 years. However, the benefits of this approach, which precludes a higher oestrogen dose up to the normal age of menopause, need to be proven in well-designed randomized controlled trials. Moreover, long-term adherence to HRT should also be achieved to obtain the maximum benefit. Therefore, there is an imperative need for more research that indicates the best way to offer HRT at different ages of early hypoestrogenism since, even in women with POI, there is high heterogeneity in the way and time during which it is prescribed.

SHOULD PREDICTION MODELS AND NEW BIOMARKERS REPLACE TRADITIONAL RISK FACTORS IN PRETERM BIRTH SCREENING?

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Preterm birth remains a leading cause of neonatal morbidity and mortality worldwide, yet our approaches to risk stratification in routine antenatal care continue to rely heavily on traditional clinical risk factors such as prior preterm birth, cervical surgery, smoking, multiple gestation, and short cervical length. In parallel, rapid advances in data science, multi-omics technologies, and biomarker discovery have generated a new generation of prediction models and candidate biomarkers that promise earlier, more precise identification of women at risk. This lecture critically examines whether these emerging tools should replace — or instead complement — established risk-based screening strategies. We will first review the strengths and limitations of traditional risk factors, including their accessibility, low cost, and integration into existing care pathways, but also their modest predictive performance at the individual level. We will then explore contemporary prediction models that integrate clinical, imaging, and biochemical data, as well as novel biomarkers derived from proteomics, metabolomics, inflammatory pathways, extracellular vesicles, and cervicovaginal or circulating analytes. Key issues to be addressed include model discrimination and calibration, reproducibility across populations, clinical utility versus statistical significance, cost-effectiveness, health equity, and implementation challenges in diverse care settings. Finally, we will consider whether the central question is not replacement but integration: how to combine traditional risk factors, cervical assessment, and validated biomarkers within dynamic, individualized prediction frameworks. By evaluating the evidence through a lens of clinical impact, feasibility, and ethical responsibility, this session aims to provide a balanced perspective on the future of preterm birth screening and to outline priorities for research and translation into practice.

RECURRENT PREGNANCY LOSS IN POLYCYSTIC OVARY SYNDROME: UNDERLYING GENETIC AND METABOLIC CONTRIBUTORS

Elene Asanidze, *Georgia*

Polycystic ovary syndrome (PCOS) is a heterogeneous endocrine-metabolic disorder associated with an increased risk of adverse pregnancy outcomes, including recurrent pregnancy loss (RPL). The mechanisms underlying this association remain incompletely understood and are likely multifactorial, involving interactions among metabolic, endocrine, vascular, and genetic factors. Insulin resistance and compensatory hyperinsulinemia may be central contributors to pregnancy loss in women with PCOS. Together with obesity and hyperandrogenism, these abnormalities may impair oocyte quality, endometrial receptivity, implantation, trophoblast function, and early placentation. Women with PCOS and RPL have been reported to demonstrate greater metabolic disturbance than women with PCOS and successful pregnancies, suggesting that the severity of metabolic dysfunction may influence pregnancy prognosis. Hyperhomocysteinemia may represent an additional metabolic and vascular contributor. Elevated homocysteine concentrations have been described in women with PCOS and have been associated with insulin resistance. Potential mechanisms linking hyperhomocysteinemia with pregnancy loss include endothelial dysfunction, oxidative stress, altered vascular homeostasis, and impaired placental adaptation. Genetic variants influencing homocysteine metabolism and fibrinolysis may further modify susceptibility to pregnancy loss in PCOS. MTHFR C677T and A1298C polymorphisms, particularly homozygous C677T and compound C677T/A1298C genotypes, have been investigated because of their potential influence on folate-dependent homocysteine metabolism. Similarly, the PAI-1 4G/5G polymorphism, particularly the 4G/4G genotype, has been investigated through its association with increased PAI-1 expression, reduced fibrinolytic activity, and impaired placental microvascular adaptation. Although associations between PAI-1 variants and RPL have been supported by meta-analysis, their specific contribution to PCOS-associated RPL remains uncertain. Heterogeneity among studies and limited clinical utility preclude interpretation of MTHFR and PAI-1 variants as established causal determinants or validated biomarkers. PCOS-associated RPL should therefore be considered within an integrated metabolic, endocrine, vascular, and genetic framework rather than attributed to a single molecular abnormality. The coexistence of insulin resistance, hyperinsulinemia, obesity, hyperandrogenism, hyperhomocysteinemia, and potential genetic modifiers may define an adverse metabolic–endocrine phenotype associated with increased risk of pregnancy loss in women with PCOS. Recognition of this phenotype may support more individualized assessment of women with PCOS and RPL and provide a framework for interpreting emerging clinical and research data.

DEBATE: DOES AI IMPROVE EMBRYO SELECTION IN IVF

CON: RCTS ARE LACKING AND WITHOUT CLEAR PROOFS, IT SHOULD NOT BE ADOPTED

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Artificial intelligence (AI) has emerged as a promising approach to embryo selection in assisted reproductive technology (ART). By providing automated and standardized assessment, AI may reduce subjectivity, improve reproducibility, and increase the efficiency of embryo assessment. However, technological performance should not be equated with clinical effectiveness. At present, evidence remains insufficient to support the routine use of AI-based embryo selection in clinical practice. The strongest evidence is provided by the multicentre, randomized, double-blind non-inferiority trial by Illingworth and coworkers (Nature Medicine in 2024). The study compared deep-learning embryo selection using iDAScore with conventional morphology-based assessment in 1066 IVF patients. Clinical pregnancy occurred in 46.5% of patients in the AI group and 48.2% in the morphology group, corresponding to a risk difference of -1.7 percentage points (95% CI, -7.7 to 4.3). The prespecified non-inferiority criterion was not met. Therefore, the study did not

demonstrate that AI-based selection was at least as effective as conventional embryologist assessment. Importantly, failure to demonstrate inferiority should not be interpreted as evidence of equivalence, superiority, or clinical benefit. AI may nevertheless offer advantages in terms of standardization. Conventional embryo assessment remains partly subjective and can vary according to embryologist experience and interpretation. Automated scoring could potentially reduce inter-observer variability and facilitate more consistent embryo ranking. However, improved reproducibility alone does not necessarily result in better reproductive outcomes. The clinical relevance of AI therefore depends on whether these technological improvements translate into meaningful patient-centred benefits. The wider evidence base remains limited. Many studies are retrospective, single-centre investigations or use selected datasets, while frequently focusing on predictive performance rather than clinically relevant outcomes such as cumulative live birth. Future adequately powered, prospective, multicentre randomized trials should therefore evaluate non-inferiority or superiority using clinically relevant endpoints, particularly cumulative live birth. They should also establish safety, external validity, reproducibility across laboratories and imaging platforms, and cost-effectiveness. Particular attention should be given to the risk of incorrectly ranking or excluding embryos with reproductive potential. Until such evidence becomes available, AI-based embryo selection should be considered an adjunctive or investigational technology rather than a replacement for conventional assessment. Clinical implementation should be driven by demonstrated patient benefit rather than technological promise.

THE COST-EFFECTIVENESS OF RE-BIOPSY AND POST-CRYOPRESERVATION BIOPSY IN PGT-A CYCLES

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Repeated embryo manipulation during preimplantation genetic testing for aneuploidy (PGT-A), including re-biopsy and biopsy after cryopreservation, has become an increasingly relevant clinical and laboratory issue. This presentation reviews the available evidence on the impact of double vitrification and repeated trophectoderm biopsy on embryo viability and reproductive outcomes, and explores the clinical and economic implications of these strategies. Current evidence suggests that repeated micromanipulation may compromise embryo competence, although the magnitude of the effect remains heterogeneous across studies. A review of 12 studies evaluating double biopsy and/or double vitrification identified five studies reporting no significant association with clinical outcomes and seven suggesting a negative effect. The most recent meta-analytic evidence indicates that double vitrification with single biopsy may be associated with an approximately 8.3% reduction in live birth rate, whereas double biopsy combined with double vitrification may be associated with reductions of approximately 15.3% in clinical pregnancy rate and 39.3% in live birth rate, together with an approximately 105% increase in miscarriage rate. Data comparing re-biopsy with transfer of no-result blastocysts suggest that both approaches require careful consideration, particularly because the effectiveness and clinical utility of PGT-A itself remain debated. A multicentre cost-effectiveness analysis further evaluated re-biopsy and post-cryopreservation biopsy according to maternal age, blastocyst availability and healthcare-system costs. Although additional PGT-A-related manipulation may reduce the number of ineffective transfers in selected patients, it was consistently associated with lower modeled live birth probability and was not universally more cost-effective than untested blastocyst transfer. The economic balance varied substantially between centers and with maternal age and blastocyst cohort size. Overall, repeated biopsy and double vitrification should not be considered routine interventions in PGT-A cycles. Decisions should instead be individualized according to maternal age, number and quality of available blastocysts, indication for genetic testing, local regulatory and economic conditions. Comprehensive counseling should explicitly address the potential biological cost of additional embryo manipulation and the uncertainty surrounding long-term neonatal outcomes. Further large, high-quality studies and long-term follow-up are needed to better define the clinical safety and reproductive consequences of repeated embryo manipulation.

PERSONALIZATION OF OVARIAN STIMULATION, DO WE NEED TO BASE IT ON AGE AND MARKERS OF ORT

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The aim of ovarian stimulation is to obtain more than 1 oocyte, as one oocyte is the yield of endogenous FSH stimulation in the normal menstrual cycle, and this level needs to be clearly surpassed to make assisted reproduction efficient. At the same time we will start to ask the question how many oocytes we then need to have an optimal chance of a live birth for the couple? We immediately look at data that correlate oocyte number with the chance of live birth and state that 10-15 oocytes is the optimal number as it will also help managing the prevention of the Ovarian Hyperstimulation Syndrome. From dosage comparison and dosage response studies it has become clear that for an individual woman the number of oocytes does not affect the chance of getting to a live birth. The age of the woman has shown to be the key factor of success, and the number of follicles or oocytes is only relevant for safety management. Our abilities to forecast the ovarian response to FSH stimulation is quite well managed with tools like the Antral Follicle Count and the AMH level. Today the antagonist LH peak suppression protocol is highly preferred in both predicted Low and High responders. Low responders do not need higher than normalsFSH dosages, while predicted high responder may benefit from a slightly lower starting dosage, and, if a high or excessive response is still obtained, an agonist trigger combined with freeze all will serve safety. With increasing female age final succes srates become more and more disappointing, due to the fall in oocyte quality. The use of high FSH dosages, specific FSH compounds containing also LH or LH like components, nor the combination of urinary with recombinant products will have any beneficial effect on the prospects of success. The only factor that can be positively affected is the factor time that it takes to fully use a couples potential and create rapid execution of treatment cycles.

FUTURISTIC GENE EDITING FOR POLYGENIC DISEASES

Shai Carmi, *Israel*
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Most chronic and late onset diseases are polygenic, namely, are influenced by hundreds or thousands of genes and variants, in addition to environmental and random risk factors. Prevention is not always easy or feasible, raising the question of whether risk can be reduced before life. Embryo screening and selection based on polygenic disease risk (PGT-P) is one possibility, already available to US-based patients. However, risk reduction is limited to the (often small) pool of available embryos. A radical futuristic alternative is to edit the genome of the target embryo to simultaneously reduce its genetic risk to multiple conditions. In a thought-provoking paper, Visscher et al (Nature, 2025) presented a theoretical analysis of heritable genome editing, suggesting that by introducing rare protective variants into the genomes of embryos, some severe conditions, such as type 2 diabetes or coronary artery disease, can be nearly entirely eradicated. In this talk, I will review the findings of Visscher et al and evaluate them critically. Particularly, I will highlight barriers to implementation that are unlikely to resolve in the near future and potential risks of large-scale genome editing. I will also mention a number of ethical and social concerns that have been associated with heritable embryo editing.

PGT-P: THE FUTURE OF PGT OR AN UNETHICAL APPROACH?

Shai Carmi, *Israel*
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Polygenic diseases, such as coronary heart disease, diabetes, schizophrenia, breast cancer, and dementia, are influenced by numerous genetic variants genome-wide. New technologies in preimplantation genetic testing (PGT) allow the sequencing the entire genomes of embryos, such that the genetic risk of each embryo can be easily computed for any number of conditions. Despite a heated debate around this new technology (polygenic embryo screening, or PGT-P), it is already available to US-based patients. In this talk, I will provide a brief review of the current status of the technology and considerations for and against offering it,

particularly ethical and social concerns, stakeholder attitudes, the expected risk reductions, and possible harms to patients. I will conclude that at present, polygenic embryo screening appears beneficial only in narrow use cases, particularly prospective parents with a personal or a familial history of a severe polygenic disease.

DEBATE: ANY PLACE FOR AI IN OVULATION INDUCTION? YES

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Artificial intelligence (AI) is rapidly evolving from prediction toward clinical decision support in controlled ovarian stimulation (COS), where clinicians must integrate age, ovarian reserve, endocrine profile, follicular dynamics, and treatment variables while balancing oocyte yield, safety, burden, and cost. AI is particularly suited to this multidimensional, dynamic process because it can identify nonlinear interactions and continuously update individualized predictions. Retrospective evidence is already substantial. Machine-learning models using random forests, gradient boosting, XGBoost, neural networks, and multimodal approaches have predicted gonadotropin requirements and optimal trigger timing, low and hyper-response, oocyte and metaphase-II (MII) yield, OHSS risk, frequently outperforming conventional regression or isolated ovarian-reserve markers. Recent studies involving thousands to tens of thousands of cycles report clinically relevant discrimination, while external validation in selected models supports potential generalizability. Explainable-AI methods such as SHAP additionally provide insight into patient-specific drivers of predictions. Prospective evidence is now emerging. Stim Assist, evaluated prospectively against matched historical controls that were treated by the same doctors and did not use AI, showed numerical increases in oocytes and MII oocytes together with lower FSH consumption, although differences were not statistically significant. Importantly, three prospective randomized trials have evaluated Opt-IVF, a model-based optimal-control decision-support system rather than conventional machine learning. All these prospective randomized trials showed that Opt-IVF consistently reduced cumulative gonadotropin exposure while improving oocyte/MII yield, good-quality blastocysts, and clinical pregnancy. The largest multicentre randomized trial reported approximately 20% lower total dosage of FSH and improved reproductive outcomes with Opt-IVF. These findings provide proof of concept that algorithm-guided, individualized COS can outperform conventional physician management. Most importantly, the evidence is still evolving. Randomized trials specifically testing machine-learning AI are needed. The IDoser multicentre trial was designed to compare ML-selected versus clinician-selected starting FSH dose, while the ongoing AI-TOP randomized trial is evaluating AI-assisted trigger timing, with MII oocytes as its primary endpoint. Such prospective trials are expected to clarify whether predictive superiority translates into better reproductive outcomes, including medication exposure, monitoring burden, cumulative live birth, OHSS, and cost-effectiveness. Therefore, the answer to “Any place for AI in ovulation induction?” is unequivocally “yes”. AI should not replace the reproductive specialist, but it should amplify clinical expertise. AI has the potential to become a central component of precision COS—making treatment more personalized, safer, more efficient, and, ultimately, more successful for patients undergoing IVF.

WHICH FIBROIDS SHOULD BE REMOVED BEFORE IN VITRO FERTILIZATION?

Angelos Daniilidis, Nikolaos Roussos, *Greece*

Problem statement: Uterine fibroids are frequently encountered in women undergoing infertility treatment; thus, their impact on reproductive outcomes and the indications for myomectomy before in vitro fertilization (IVF) remain controversial. Evidence suggests that the effect of fibroids depends on their location, size, number, and relationship with the uterine cavity. The aim of this review was to evaluate which fibroids may adversely affect IVF outcomes and when myomectomy should be considered. ***Methods***: Evidence from observational studies, systematic reviews, meta-analyses, and recent clinical literature presented in the context of reproductive surgery was evaluated, focusing on pregnancy, implantation, miscarriage, and live birth outcomes in women with fibroids undergoing assisted reproductive treatment. Particular attention was given to submucosal, intramural, subserosal, and FIGO type 3 fibroids, as well as the effect of fibroid size and number. ***Results***: Subserosal fibroids generally do not appear to adversely affect reproductive outcomes. In contrast, submucosal fibroids and intramural fibroids that distort the uterine cavity are consistently associated with poorer reproductive outcomes and represent the strongest indications for surgical treatment. Evidence regarding non-cavity-distorting intramural fibroids is conflicting. Several studies and meta-analyses have reported reduced clinical pregnancy and live birth rates, particularly with increasing fibroid size, multiple fibroids, or fibroids measuring ≥3–5 cm. Conversely, other studies have failed to demonstrate a clear benefit of myomectomy before IVF in asymptomatic women with non-cavity-distorting intramural fibroids. Recent evidence therefore does not support routine myomectomy for every intramural fibroid. Surgical treatment should additionally consider patient age, infertility duration, previous treatment, fibroid characteristics, surgical expertise, and the potential impact of surgery on ovarian reserve and uterine integrity. ***Conclusion***: Not all fibroids require removal before IVF. Myomectomy should be strongly considered for submucosal and cavity-distorting fibroids, while individualized decision-making is appropriate for non-cavity-distorting intramural fibroids, particularly when they are large or multiple. Current evidence remains insufficient to recommend routine myomectomy for all asymptomatic intramural fibroids, highlighting the need for individualized reproductive-surgical management.

Disclosure of Interest: *The authors declare no conflicts of interest.*

TUBECTOMY AT CESAREAN SECTION FOR OVARIAN CANCER RISK REDUCTION: THE CASE FOR OPPORTUNISTIC SALPINGECTOMY

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For women undergoing cesarean delivery who have completed childbearing and have chosen permanent contraception, opportunistic bilateral salpingectomy offers a unique opportunity to combine definitive contraception with potential ovarian cancer risk reduction. The rationale is biologically compelling. Increasing evidence supports the distal fallopian tube as the site of origin for a substantial proportion of high-grade serous ovarian carcinomas. Removal of the entire fallopian tube therefore provides a theoretical advantage over traditional tubal interruption, which leaves most tubal epithelium in situ. Population-based studies suggest that salpingectomy is associated with a greater reduction in future ovarian cancer risk than tubal ligation. Importantly, this potential benefit does not appear to come at the cost of substantial perioperative morbidity. Systematic reviews and meta-analyses of salpingectomy at cesarean delivery demonstrate only a modest increase in operative time, without consistent increases in blood loss, transfusion, infection, readmission, reoperation, or organ injury. Large real-world population studies have similarly provided reassuring safety data. Theoretical concerns regarding compromise of ovarian blood supply have also not translated into convincing evidence of reduced ovarian reserve. In addition, economic models suggest that opportunistic salpingectomy can be a cost-effective strategy when performed at cesarean delivery in women already seeking permanent contraception. The argument is therefore not for routine salpingectomy in every cesarean delivery. Rather, in an appropriately counseled woman who desires permanent contraception, bilateral salpingectomy should be offered as the preferred option when technically feasible. It avoids a future procedure, provides highly effective permanent contraception, and adds a potentially meaningful opportunity for ovarian cancer prevention.

GLP-1 AND GESTATIONAL DIABETES

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Glucagon-like peptide-1 (GLP-1) has become central to the treatment of type 2 diabetes and obesity, increasing the likelihood that women of reproductive age will encounter GLP-1 receptor agonists before conception or during early pregnancy. This lecture examines the relevance of GLP-1 biology to gestational diabetes mellitus (GDM) and asks whether current evidence supports

therapeutic use of GLP-1 receptor agonists during pregnancy. Pregnancy is characterized by progressive insulin resistance and a compensatory increase in pancreatic β-cell function. GDM develops when β-cell compensation is insufficient for the prevailing metabolic demand. GLP-1 may contribute to this physiology through glucose-dependent stimulation of insulin secretion, glucagon modulation, effects on gastric emptying, and appetite regulation. However, human studies do not support a simple model of GLP-1 deficiency in GDM. Reported findings include reduced GLP-1 secretion relative to glycemia, increased post-load GLP-1 concentrations interpreted as compensation or incretin resistance, and associations between GLP-1 and insulin that do not consistently extend to glucose concentrations. The biological rationale for GLP-1 receptor agonism is therefore compelling but remains distinct from clinical evidence. Direct trials of intentional GLP-1 receptor agonist treatment for GDM are lacking. Available pregnancy data largely concern inadvertent or periconceptional exposure and are limited by small numbers, observational designs, heterogeneous exposure, and confounding by diabetes, obesity, and glycemic control. A recent systematic review found no consistent signal for major congenital malformations but concluded that the evidence is insufficient for firm safety conclusions. Animal, placental, and cellular studies provide reasons for continued caution rather than proof of clinical harm.

The lecture concludes that GLP-1 is a promising pathway for understanding GDM and a priority for future research, but GLP-1 receptor agonists should not currently be initiated to treat GDM. Preconception planning, prompt review of inadvertent exposure, and transition to established pregnancy-compatible therapies remain the appropriate clinical approach.

The central message is promising pathway, unproven pregnancy therapy.

ORAL AGENTS FOR GESTATIONAL DIABETES: SHOULD THEY BE FIRST-LINE PHARMACOLOGIC THERAPY? - CON

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When lifestyle intervention fails in gestational diabetes mellitus (GDM), the therapeutic goal is straightforward: normalize maternal glycemia while minimizing treatment-related maternal and fetal risk. Insulin remains uniquely suited to this purpose. It can be precisely titrated, has no practical therapeutic ceiling, does not cross the placenta, and has decades of pregnancy safety data. Accordingly, the 2026 American Diabetes Association Standards of Care continue to recommend insulin as the preferred pharmacologic treatment for GDM and specifically state that metformin and glyburide should not be used as first-line agents. Metformin is clearly preferable to glyburide and may be appropriate when insulin is declined or impractical. However, “reasonable alternative” is not equivalent to “preferred first-line therapy.” Metformin freely crosses the placenta, with fetal concentrations approaching or exceeding maternal levels. Treatment failure requiring insulin occurs in approximately 14 - 46% of women. Moreover, a 2026 network meta-analysis of 71 randomized trials including 14,877 participants found biguanides associated with increased low birth weight (OR 2.04, 95% CI 1.04–4.01). The authors noted that fetal metformin exposure may affect mitochondrial oxidative phosphorylation, AMPK signaling, and nutrient-allocation pathways. All are mechanisms with plausible implications for fetal growth and metabolic programming. Long-term data remains incomplete. In MiG-TOFU, children exposed to metformin had similar total and abdominal fat percentages and metabolic parameters at 7–9 years but were larger in weight and arm and waist circumferences, with uncertain long-term significance.

Recent randomized evidence further argues against an oral-first strategy. In the 2025 SUGAR-DIP trial, sequential metformin followed by glyburide failed to demonstrate noninferiority to insulin for large-for-gestational-age birth (23.9% vs 19.9%), and maternal hypoglycemia was more frequent (20.9% vs 10.9%). Glyburide is even less defensible: the INDAO trial failed to establish noninferiority for perinatal complications and concluded that its use as first-line therapy was not justified.

Oral agents have an important role, particularly when insulin is unacceptable or impractical. But first-line therapy should remain insulin: treat maternal hyperglycemia effectively without unnecessarily exposing the fetus to a pharmacologically active metabolic agent whose long-term effects remain incompletely defined.

SHORTER PROTOCOLS OF VITRIFICATION AND WARMING: THE SCIENCE BEHIND THE MODELS

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Despite the arrival of new, shorter protocols for preparation for vitrification and rehydration after warming of oocytes and embryos, the fundamentals behind vitrification have not changed. By transforming cytoplasmic water into an amorphous solid through ultrarapid cooling, vitrification prevents lethal intracellular ice formation. Warming is also carried out as fast as possible, to prevent de novo formation or growth of previously existing ice crystals. Traditionally, preparation for vitrification protocols employ two solutions: a less concentrated equilibration solution (ES) and a highly concentrated vitrification solution (VS). Since the early work of Rall and Fahy, this two-step method has been refined and clinically adopted with extended exposure to ES to achieve osmotic equilibrium. Recent advances challenge this paradigm. Modelling studies based on human oocyte permeability demonstrated that the critical osmotic changes required for vitrification occur within the first 30–60 seconds of ES exposure, reaching similar intracellular osmolarity to that achieved with conventional 9–15 minute protocols. These findings support the feasibility of short vitrification protocols, reducing preparation time to approximately 1 minute. Similarly, warming protocols face change as well. Conventional wisdom says that gradual rehydration using stepwise CPA dilution is essential. However, evidence now supports simplified one-step warming using 1M – or lower concentrations - of non-permeable CPA solutions (e.g., sucrose or trehalose), followed by immediate culture medium exposure without intermediate steps. Recent studies indicate that this approach achieves effective rehydration and maintains embryo viability, potentially allowing further simplification to lower CPA concentrations or direct warming in culture medium. Additionally, direct warming in an isotonic solution, such as culture media, is being explored. Shortened vitrification and warming protocols offer clear advantages: reduced manipulation time, minimized exposure to non-physiological osmotic and temperature conditions, and decreased CPA cytotoxicity. These changes may also lead to more stable cytoplasmic conditions during cooling and warming, potentially improving outcomes. In this presentation, we will dive deep to understand how different preparation for vitrification protocols interact and influence with the osmotic behaviour during warming, and the possible differences between cell types, from oocytes to blastocysts.

PRACTICAL MANAGEMENT STRATEGIES OF VASOMOTOR SYMPTOMS (VMS) AND VULVOVAGINAL ATROPHY (VVA) IN THE MENOPAUSAL TRANSITION

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Vasomotor symptoms and vulvovaginal atrophy represent the most prevalent and clinically impactful sequelae of the hypoestrogenic state accompanying the menopausal transition, affecting up to 80% and 50% of postmenopausal women, respectively. Unlike VMS, which frequently attenuate over time, vulvovaginal atrophy (VVA), now more comprehensively termed genitourinary syndrome of menopause (GSM), follows a progressive, chronic course in the absence of targeted intervention, necessitating individualized, evidence-based management strategies. Systemic menopausal hormone therapy (MHT) remains the most efficacious intervention for moderate-to-severe VMS, with estrogen-progestogen combinations indicated in non-hysterectomized women to mitigate endometrial proliferative risk. Transdermal estradiol formulations are favored owing to their superior pharmacokinetic profile, avoidance of first-pass hepatic metabolism, lower thrombogenic potential, and reduced impact on triglyceride levels relative to oral preparations. Micronized progesterone is the progestogen of choice when endometrial protection is required, offering a more favorable cardiovascular and breast safety profile. For women with contraindications to estrogen or those preferring non-hormonal alternatives, selective serotonin-norepinephrine reuptake inhibitors (SNRIs) — particularly venlafaxine — and the recently approved neurokinin B receptor antagonists (e.g., fezolinetant) represent emerging first-line non-hormonal pharmacotherapy with

demonstrated efficacy in reducing hot flush frequency and severity. The management of GSM/VVA should be addressed independently, as systemic MHT doses are often insufficient to fully restore urogenital tissue. Low-dose vaginal estrogen, available as creams, tablets, or flexible rings, achieves therapeutic local tissue concentrations with negligible systemic absorption, rendering it appropriate even in women who are otherwise considered poor candidates for systemic therapy, including most breast cancer survivors. Ospemifene, an oral selective estrogen receptor modulator, provides a systemic non-estrogen alternative for dyspareunia. Vaginal dehydroepiandrosterone (prasterone) offers dual androgenic and estrogenic receptor activity within urogenital tissues, addressing both epithelial atrophy and sexual dysfunction. Non-hormonal adjuncts, including long-acting vaginal moisturizers and pH-balanced lubricants, remain integral components of comprehensive GSM management. Shared clinical decision-making, incorporating individual risk stratification (particularly cardiovascular, thromboembolic, and breast cancer risk) remains paramount. Periodic reassessment of symptom burden, therapeutic benefit, and evolving risk profiles should guide treatment duration and modification.

AGAINST EMPIRICAL METFORMIN USE IN THE OBESE GRAVIDA AT EARLY PREGNANCY: A CRITICAL APPRAISAL

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Obesity in pregnancy confers substantial maternal and fetal risks, including gestational diabetes mellitus (GDM), hypertensive disorders, macrosomia, and adverse neonatal outcomes. The pharmacological potential of metformin, an insulin sensitizer with a well-established safety record in type 2 diabetes mellitus and polycystic ovary syndrome (PCOS), has prompted increasing interest in its prophylactic use in obese pregnant women. However, current evidence does not support its routine antenatal prescription in this population, and several mechanistic, clinical, and ethical concerns warrant critical scrutiny. The landmark EMPOWaR and MOP trials, both double-blind, placebo-controlled randomized studies, demonstrated no statistically significant reduction in primary outcomes, including large-for-gestational-age (LGA) neonates, GDM incidence, gestational weight gain, or composite adverse perinatal outcomes, in obese women receiving metformin from the first trimester. Despite the well-documented transplacental passage of metformin, the implications of fetal exposure remain incompletely characterized across gestation. Notably, metformin-exposed offspring in some cohorts have demonstrated paradoxical increases in childhood adiposity at follow-up assessments, raising concerns about long-term metabolic programming, a finding with considerable epigenetic plausibility, given metformin's AMPK-mediated interference with mitochondrial function during critical developmental windows. From a pharmacokinetic standpoint, renal clearance of metformin increases substantially during pregnancy due to augmented glomerular filtration, rendering standard dosing regimens potentially subtherapeutic; in contrast, dose escalation introduces gastrointestinal intolerability and a theoretical risk of lactic acidosis in patients with pregnancy-associated physiological hemodynamic shifts. Furthermore, conflating insulin resistance in obesity with established GDM pathophysiology oversimplifies the metabolic heterogeneity of the obese gravid state, in which inflammatory dysregulation, adipokine imbalance, and placental dysfunction contribute independently to adverse outcomes beyond hyperglycemia alone. Ethical considerations also merit emphasis: Obese pregnant women without confirmed glucose dysregulation or polycystic ovary syndrome represent a population for whom informed consent regarding off-label use, unresolved fetal safety data, and the absence of regulatory approval for this indication must be transparently communicated. In conclusion, although metformin's therapeutic role in confirmed GDM and insulin-resistant states remains validated, its empirical prescription in normoglycemic obese pregnant women at early gestation is premature, insufficiently evidence-based, and potentially carries risk to the developing conceptus.

CONTINUOUS REPRODUCTIVE IDENTITY: A NEW INFORMATION ARCHITECTURE FOR REPRODUCTIVE MEDICINE

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Assisted reproductive medicine has evolved into one of the most data-intensive and technologically sophisticated areas of medicine. Yet its information systems remain largely organized around isolated encounters, treatment cycles, institutions, and software platforms. A reproductive journey, however, does not follow these boundaries. It may extend over many years and involve patients, gametes, embryos, cryopreservation, genetic testing, pregnancies, and outcomes across multiple clinical and laboratory environments. As a result, essential reproductive information can become fragmented precisely when continuity matters most. This presentation introduces **Continuous Reproductive Identity (CRI)**, a conceptual framework proposing that reproductive information should be organized around the continuity of the reproductive journey rather than around individual episodes of care. At its core is a simple principle: every relevant biological entity and clinical event should retain its own identity while remaining persistently connected to the reproductive journey from which it originates. This allows relationships between patients, gametes, embryos, procedures, laboratory events, pregnancies, and outcomes to remain traceable over time, even when care moves between systems or institutions. To operationalize this concept, the framework introduces the **Reproductive Identity Graph (RIG)**, a structured information model capable of representing these relationships while preserving provenance, chronology, governance, and chain of custody. Rather than creating another centralized database, CRI proposes an interoperable and vendor-neutral architecture in which institutions can maintain control of their data while participating in a shared information framework. Such an architecture could have implications far beyond documentation. Persistent reproductive identity could strengthen patient safety and traceability, improve longitudinal and cumulative outcome assessment, facilitate interoperability and registry science, and provide more reliable foundations for artificial intelligence and federated research. The central proposition is that reproductive medicine may have reached an **information bottleneck**: increasingly sophisticated treatments and technologies are being built upon information systems that were not designed to represent the biological and temporal complexity of reproduction. Moving from episode-based records toward continuous reproductive identity may therefore represent an important next step in the evolution of reproductive medicine, creating an information architecture that reflects reproductive care as it actually occurs **not as a collection of isolated cycles, but as a connected reproductive journey.**

POLYENDOCRINE METABOLIC OVARIAN SYNDROME (PMOS): THE NEW POLYCYSTIC OVARIAN SYNDROME (PCOS): DISSEMINATION AND NEXT STEPS

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Polyendocrine metabolic ovarian syndrome (PMOS) is one of the most common endocrine conditions affecting hundreds of millions of women globally. The former name polycystic ovary syndrome (PCOS) was inaccurate, underpinning the recent robust nomenclature change process. Here I cover the why, how, what and next steps in this change process The name PCOS was repeatedly challenged on scientific grounds, with the absence of increased ovarian cysts and neglect of the breadth of the disorder, and on systemic grounds from narrow ovarian classification, limited research, data capture, education, provider knowledge, alongside diagnostic delay and care dissatisfaction. Historically isolated expert opinions predominated. The global, patient-co-led, multistep process, involved 56 organisations and 22,000+ survey respondents. Agreed principles focused on scientific accuracy, reducing stigma, cultural appropriateness, and implementation and the process delivered 97.% consensus on the name PMOS. Implementation spans coding and reclassification from an ovarian disorder to an endocrine disorder, expanded research, education, clinical guidelines and care with early adoption and predominantly positive reception across media, social media, research and academic literature, and professional societies.

Key Words: *PCOS, PMOS, Dissemination, Implementation, Coding, Reclassification*

OVARIAN FUNCTION CEASES WAY BEFORE OTHER ORGANS START TO FAIL; LESSONS LEARNED FROM DNA TESTING?

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The ovary is the first organ in the human body to undergo aging, affecting both fertility and overall health. There is overwhelming evidence that most genes associated with the age of menopause are involved in DNA repair mechanisms, including double-strand break repair, mismatch repair, and base excision repair. The remaining associated loci are linked to cellular energy metabolism and immune responses. Recent analyses have revealed coordinated changes in transcriptomes and chromatin accessibility across different ovarian cell types during aging, with granulosa cells exhibiting the greatest number of aging-associated differentially expressed genes. Furthermore, the ovary is among the organs that harbor the highest number of long genes, which are particularly susceptible to gene-length-dependent transcriptional decline. This severely impairs the transcriptional machinery and significantly contributes to aging as an etiological factor. The gradual accumulation of unrepaired DNA damage leads to cell death and cellular senescence. In turn, this results in the exhaustion of cellular renewal capacity and dysfunction of affected organs, ultimately contributing to aging of the entire soma. A similar erosion of genomic integrity occurs within the germ cell line and the ovaries. Subsequently, the systemic “survival” response intentionally suppresses sex steroid hormone production, which may contribute to the onset of menopause. These processes are expected to act synergistically to promote ovarian silencing and establish menopause. Interestingly, women with Polyendocrine Metabolic Ovarian Syndrome (PMOS) enter menopause later on in life compared to those without PMOS. This is due to the fact that they harbor the better DNA repair and maintenance variants. Hence, they are able to repair damage adequately and as such this diminishes the impact of such damage on the ovaries. As a consequence nature grants them a longer reproductive life span. In conclusion somatic aging appears to be a primary driver of the decline in ovarian function in women and in women with PMOS this process is significantly delayed.

Key Words: *DNA Damage and Repair genes, Menopause, PMOS, Reproductive Life Span*

INVASIVE VS NONINVASIVE PGT -A - FROM CELL DNA TO CELL – FREE DNA

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Preimplantation genetic testing for aneuploidy (PGT-A) is a popular approach in assisted reproductive technology that improves embryo selection and implantation rates. Traditional approaches rely on trophectoderm (TE) biopsy, which is an invasive procedure that might jeopardize embryo integrity and create technical constraints such asmosaicism-related misclassification. Non-invasive preimplantation genetic testing (niPGT) has emerged as a possible alternative, using embryonic cell-free DNA (cfDNA) extractedfrom wasted culture media or blastocoel fluid to assess chromosomal status without requiring direct embryo manipulation. The release of cfDNAfrom embryos is influenced by apoptotic and necrotic processes, active DNA shedding, and extracellular vesicle secretion, which results in fragmented chromosomal material of different qualities and quantities. While niPGT has shown promise as a noninvasive screening approach, significant variability in cfDNA yield, maternal DNA contamination, and sequencing biases all have an impact on test accuracy. Studies show that niPGT and TE biopsies have moderate-to-high concordance, although there are still issues in detecting mosaicism, segmental aneuploidies, and DNA degradation artifacts. On the other hand niPGT is a safer and less intrusive alternative to TE biopsy, with potential clinical benefits. However, technical advancements are required to improve cfDNA collecting procedures, reduce contamination, and improve sequencing accuracy. Additional large-scale validation studies are needed to create standardized methodologies and ensure that niPGT achieves the diagnostic reliability requirements required for widespread clinical deployment in IVF programs. While niPGT has tremendous potential as a non-invasive alternative to embryo biopsy, its widespread clinical adoption is now hampered by biological constraints, technological hurdles, and the need for rigorous validation studies. Advances in molecular biology, sequencing technology, artificial intelligence-driven embryo selection, and multiomics techniques will be important for boosting niPGT diagnosis accuracy and ART success rates. Until these limitations are resolved, niPGT should be regarded as an emerging technology rather than a fully validated clinical tool, with further study needed to maximize its use in reproductive medicine.

DEBATE: THE CHOICE OF GONADOTROPINS AND CYCLE MONITORING DURING STIMULATION? IS IMPORTANT

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Controlled ovarian stimulation (COS) is a cornerstone of ART, yet the optimal strategy cannot be reduced to a “one-size-fits-all” approach. Although current evidence does not demonstrate the superiority of any particular gonadotropin preparation or of an intensive cycle monitoring, both gonadotropin selection and targeted monitoring remain clinically important and continue to be implemented by physicians worldwide to tailor treatment to individual ovarian physiology, safety profiles, and treatment goals. Gonadotropin preparations differ in their FSH and LH origin, activity, pharmacokinetic characteristics and dosing strategies. In the general IVF population, recombinant FSH and hMG achieve broadly comparable outcomes, and routine LH supplementation is not supported. However, selected phenotypes may require a different approach. Women with profound LH deficiency require LH activity for adequate follicular steroidogenesis, while evidence suggests that selected women demonstrating an unexpected hypo-response despite adequate ovarian reserve may benefit from reconsideration of the stimulation strategy, including LH supplementation. The later may also apply for women 35-40 years old with a previous unfavourable COS. Furthermore, individualised follitropin-delta meticulous dosing based on algorithm has demonstrated non-inferior reproductive efficacy while reducing excessive ovarian response and OHSS-related interventions. Finally, corifollitropin alpha may be a valuable choice when adherence to treatment, alleviation of distress and reduction of injection burden are important considerations. Meticulous cycle monitoring transforms the initial strategy into dynamic clinical management. Ultrasound remains the primary monitoring tool, while hormonal assessments should be selective and actionable rather than routinely intensive. Estradiol levels can complement follicle number in assessing an excessive or discordant response and contribute to OHSS risk assessment, whereas unexpected declines may have prognostic value indicating rescue interventions. Trigger-day progesterone levels are particularly relevant when a fresh embryo transfer is planned, as a premature elevation may prompt a freeze-all strategy followed by frozen embryo transfer. Selective LH and progesterone assessment may also be informative when premature luteinisation is suspected, while trigger and post-trigger hormonal assessment can be considered in selected patients at risk of an inadequate response to GnRH-agonist. Thus, the importance of gonadotropin choice and monitoring does not lie in prescribing our preferred medications or performing more tests. It lies in tailoring treatment, obtaining clinically meaningful information, and translating that information into appropriate clinical action The objective of modern ovarian stimulation should be neither maximal ovarian response nor maximal monitoring, but an individualised strategy that optimises oocyte yield and cumulative reproductive potential while minimising treatment burden and risk.

ENDOMETRIAL RECEPTIVITY AND REPRODUCTIVE OUTCOMES IN ADENOMYOSIS, FIBROIDS AND ENDOMETRIOSIS: INTERIM INSIGHTS FROM THE README STUDY

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Problem statement: Adenomyosis, uterine fibroids and endometriosis may impair fertility through mechanisms extending beyond anatomical changes, including alterations in endometrial receptivity. However, the relationship between endometrial

molecular profiles and subsequent pregnancy remains incompletely understood, and the reproductive benefit of surgery is uncertain across several disease phenotypes. REAdME trial (Fertility limiting diseases of pelvic organs and their influence on receptivity of endometrial cavity) integrates prospective reproductive follow-up with endometrial transcriptomics to investigate these relationships and support more individualized treatment decisions. ***Methods:*** REAdME is a prospective, controlled, non-randomized study enrolling women with adenomyosis, uterine fibroids and deep endometriosis, alongside reference groups comprising women with minimal or mild endometriosis and women with male-factor infertility without these pelvic disorders. Women with adenomyosis or fibroids undergo fertility-preserving surgery or conservative management according to informed patient preference; symptomatic deep endometriosis is treated surgically. Secretory-phase endometrial biopsies are obtained before attempts to conceive, with paired preoperative and postoperative sampling in surgical groups. The molecular workflow combines bulk RNA sequencing, single-nucleus RNA sequencing and targeted validation. The interim analysis includes participants who completed at least 12 months of follow-up by 30 September 2026, linking reproductive outcomes with available endometrial molecular data (Fig. 1). ***Results:*** Interim findings will be presented, integrating clinical pregnancy outcomes with endometrial transcriptomic profiles. Analyses will examine whether preconception molecular profiles differ between women who subsequently achieved clinical pregnancy and those who did not. Reproductive outcomes will be considered across disease groups and management strategies, distinguishing spontaneous conception from assisted reproduction. Disease-associated molecular features and postoperative changes will also be explored where paired samples are available. ***Conclusion:*** By linking reproductive outcomes with endometrial molecular profiles, REAdME aims to clarify the contribution of endometrial biology to infertility associated with adenomyosis, uterine fibroids and endometriosis. The lecture will discuss the interim findings within the broader debate on fertility-preserving surgery, individualized reproductive counselling and the potential role of molecular profiling in future treatment selection.

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Figure 1. Graphical abstract



DEBATE: ROUTINE USE OF PRP & STEM CELLS IN POI? FOR

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Premature ovarian insufficiency (POI) remains a major challenge in reproductive medicine, particularly for women seeking pregnancy with their own oocytes. While oocyte donation is an established reproductive option, regenerative approaches such as intraovarian platelet-rich plasma (PRP) and stem cell-based treatment are being investigated to support residual ovarian activity. These approaches share the goal of improving the ovarian microenvironment but differ in their biological mechanisms. PRP delivers platelet-derived growth factors and signalling molecules that may influence angiogenesis, tissue repair and follicular function. Stem cell-based strategies act predominantly through paracrine signalling: secreted cytokines, growth factors and extracellular vesicles may modulate inflammatory pathways, oxidative stress, vascularisation, stromal function and granulosa-cell survival. Experimental evidence supports a role for these signals in preserving or supporting existing follicles; generation of new human oocytes has not been clinically demonstrated. Autologous stem cell ovarian transplantation (ASCOT), using bone marrow-derived cells mobilized and delivered to the ovary, has provided proof-of-concept evidence of ovarian niche modulation. Early clinical studies have reported follicular activity, changes in ovarian reserve markers and pregnancies in selected women with poor ovarian response. Related translational research investigates cell-secreted factors as a possible alternative to direct cell administration. However, these findings cannot be assumed to apply equally to established POI. For intraovarian PRP, observational studies have described increased antral follicle counts and, in some poor responders, improved oocyte maturation and fertilisation. In women with POI, such biological changes have not consistently translated into better IVF outcomes or live births. Interpretation of both PRP and stem cell studies is limited by small cohorts, heterogeneous treatment protocols, incomplete controls and spontaneous intermittent ovarian activity in POI. The case for regenerative medicine is therefore a case for rigorous, targeted clinical development rather than claims of an established cure. Future trials must clarify mechanisms, standardise treatment, identify patients with residual follicular potential and assess safety and live birth outcomes. PRP and stem cell-based approaches should not yet be offered as unrestricted routine care, but their distinct biological pathways justify continued investigation within controlled clinical research.

EPIGENETICS AND REPROGRAMMING

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Studies have demonstrated an increased risk for adverse perinatal outcomes, including fetal growth restriction, preeclampsia, and preterm birth following ART. These reports strongly suggest variability in epigenetic regulation, which is further supported by the increased incidence of rare imprinting disorders following assisted conception. It remains to be determined if altered epigenetic profiles are gamete-derived or acquired post-fertilization; either way, they could influence embryo, fetal and placenta growth. However, there is little in the way of follow-up studies to determine the long-term adverse outcomes associated with these modest epigenetic changes. In my presentation I will discuss the current standing of research addressing the epigenetic state of human pre-implantation embryos, including the development of low input and single-cell multiomic techniques to quantify DNA methylation reprograming and embryonic genome activation. Using genomic imprinting as a model system of maintained germline-derived epigenetic state, I will describe how methylation in the placenta is associated with intrauterine growth. Finally, I will explain how research in the fields of imprinting disorders and infertility converge to clarify the function of the subcortical maternal complex and the oocyte cytoplasmic lattice. These structures are encoded by key maternal-effect genes, which lead to a spectrum of phenotypes when mutated, ranging from fertilization failure through to multi-locus imprinting disturbances.

LOW-RESOURCE SETTING, HIGH IVF RESULTS: FROM SCIENTIFIC VALIDATION TO GLOBAL REPRODUCTIVE JUSTICE

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Infertility affects more than 200 million people worldwide, yet access to assisted reproductive technologies (ART) remains profoundly unequal. In low- and middle-income countries (LMICs), infertility services are often unavailable or restricted to costly private centres, leaving millions of couples without effective treatment. This inequity has important medical, psychological, social and economic consequences and underscores the need to recognize infertility care as an essential component of universal reproductive health. We have demonstrated that excellent IVF outcomes can be achieved in low-resource settings through scientific innovation rather than technological complexity. The Walking Egg project developed a simplified, low-cost IVF culture system that combines mild ovarian stimulation with a closed embryo culture system, thereby eliminating the need for expensive medical gases, sophisticated incubators and high-cost laboratory infrastructure while maintaining optimal culture conditions. The clinical development of this technology has followed a rigorous stepwise validation. A prospective sibling-oocyte study including more than 650 treatment cycles demonstrated ongoing pregnancy, implantation and miscarriage rates comparable with conventional

ICSI, confirming that simplification does not compromise clinical efficacy. Safety was subsequently evaluated in several independent perinatal studies. Neonatal outcomes after the simplified culture system were comparable with, and in some analyses superior to, those observed after conventional IVF/ICSI, with reassuring rates of preterm birth and low birthweight that approached those of naturally conceived singletons. These findings provide robust evidence that affordable IVF can achieve high clinical standards without compromising maternal or neonatal safety. Building upon this evidence, the simplified culture system was successfully translated into a prototype mobile IVF laboratory. In the first proof-of-concept study, five pregnancies and four live births were achieved in ten embryo transfer cycles, demonstrating that high-quality IVF can be delivered safely and effectively outside conventional high-technology laboratories, thereby creating new opportunities for regions where infertility services are scarce or absent. Low-cost IVF should therefore not be regarded as a second-tier alternative but as an evidence-based, ethically responsible and sustainable model of reproductive care. By combining scientific validation with affordability, accessibility and scalability, this approach offers a realistic pathway towards reducing global inequities in infertility care and advancing reproductive justice, ensuring that access to parenthood is determined by medical need rather than financial means.

ESTETROL: ROLE IN MHT/HRT?

Johannes Ott, *Austria*

Estetrol (E4), which is naturally produced in the fetus' liver, is used as a new estrogen in combined oral contraception. Notably, it is a stimulator of nuclear estrogen receptor alpha (ERα) rather than of the membrane Erα, where it acts in an antagonistic manner. Thus, E4 offers a specific estrogenic profile with low overall estrogenicity, which is thought to contribute to a reduced thrombotic risk compared to other oral estrogens. Its minimal interaction with the hepatic cytochrome P450 enzyme system also leads to a reduced potential for drug-drug interactions. Given this specific profile and the fact that it is already established in combined oral contraception together with drospirenone, it also is of notable interest in menopausal hormone therapy.

NATURAL PROGESTERONE VERSUS ARTIFICIAL PROGESTOGENS

Johannes Ott, *Austria*

Endometriosis, a benign, chronic inflammatory condition characterized by the presence and growth of endometrial implants outside the uterine cavity, presents a unique challenge in the postmenopausal period. This is due to the risk for recurrence and the risk for malignancy, especially ovarian cancer, which is often associated with menopausal hormone therapy. Although artificial progestogens offer the benefit of a more suppressive effect on the endometrium as well as on endometriotic lesions and, thus, are thought to lower the above mentioned risks during menopausal hormone therapy, they also introduce higher risks for breast cancer and stroke. The benefits and risks of natural progesterone versus artificial progestogens in the setting of menopausal hormone therapy and endometriosis are discussed in this lecture.

MANAGING SEVERE PREMENSTRUAL DISORDERS ESPECIALLY IN PERIMENOPAUSE

Nick Panay
Consultant Gynaecologist: Queen Charlotte's & Chelsea Hospital
Professor of Practice: Imperial College London, UK
Past President: International Menopause Society

Many women experience mild physical and emotional cycle related symptoms which are not particularly troublesome. However, when severe these symptoms can lead to a breakdown in interpersonal relationships and interference with normal activities. These symptoms can be particularly troublesome in the late reproductive and perimenopause years due to increasing hormonal fluctuations which can trigger symptoms in genetically predisposed, hormonally vulnerable, women. When PMS in severe, it may satisfy the American Psychiatric Association DSM-V criteria for premenstrual dysphoric disorder (PMDD). The International Society for Premenstrual Disorders (ISPMD) has made recommendations for a new classification with core (typical, pure or reference disorders associated with spontaneous ovulatory menstrual cycles) and variant premenstrual disorders (such as symptoms of an underlying psychological or somatic disorder significantly worsening premenstrually, now known as premenstrual exacerbation[PME]). PMS/PMDD continues to be poorly understood and in many cases inadequately managed. It can be the cause of considerable morbidity and mortality. Alternatives to traditional therapy, such as agnus castus show promise in randomized clinical trials but more data are needed. Data on use of natural progesterone alone remain controversial, although many women derive considerable benefit from this preparation. Synthetic progestogens should not be used as they can replicate the symptoms of PMS/PMDD. The more established therapies for which randomized controlled data exist are the combined "fourth" generation combined hormonal contraceptives (CHC) e.g. the 24/4 or flexible regimen 20mcg ethinylestradiol / 3mg drospirenone, transdermal estradiol, selective serotonin re-uptake inhibitors (not ideal in perimenopause) and GnRH analogues with add back HRT. Newer CHCs delivering estradiol and estetrol and the GnRH antagonists are promising but lack data specifically for PMS/PMDD. Hysterectomy with BSO and adequate HRT remains an important option for severely afflicted women whose family is complete and have not responded to other therapies.

Support for patients and health professionals is available from the National Association for Premenstrual Syndromes (NAPS) https://www.pms.org.uk/ and the International Association for Premenstrual Disorders https://iapmd.org. This presentation will use the UK RCOG Green Top Guideline No 48 and the 2026 updated NAPS guidelines on the Management of Premenstrual Syndrome / PMDD as its basis https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/premenstrual-syndrome-management-green-top-guideline-no-48/.

SHOULD HORMONE THERAPIES BE STARTED IN PRE/PERIMENOPAUSAL WOMEN?

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Recent IMS, ESE and other guidance has highlighted the challenges faced by healthcare professionals (HCPs) in trying to manage the symptoms of the perimenopause using evidence based licensed hormone therapy options whilst providing concomitant contraception where required. There is too much misinformation currently reaching HCPs and the public, particularly from social media, regarding what is safe and effective and what is not. Although currently available contraceptive options provide effective strategies for managing the menopausal transition, unmet needs remain in those with severe or persistent menopause associated symptoms. Among licensed therapies, only the 52 mg LNG-IUD, when combined with estrogen therapy tailored to the woman's needs, comes close to addressing the full spectrum of contraceptive, gynecological, and menopausal requirements. Cyclic hormone therapies with body identical or body similar hormones may improve genuine menopause associated symptoms such as VMS and GSM but are often associated with adverse effects such as bleeding problems and breast tenderness due to lack of cycle control / suppression, with excess levels of estrogen levels at times. Combined Hormonal Contraceptives (CHC) delivering natural estrogens e.g. estradiol, estetrol are an appealing option for perimenopausal women, especially into their early 50s, because of their more favorable pharmacological profile. However, their use for menopause associated symptoms is supported primarily by expert opinion rather than direct clinical evidence, they often lack licensing over 50 years, and the current medical eligibility criteria do not distinguish them from EE-containing formulations. Persistence of cycle related symptoms often warrants additional cycle suppression; the growth of GnRH antagonists has provided more practical options than were previously available with GnRH agonists, but they remain off label for managing cycle related symptoms such as PMS/PMDD. Absence of licensing for many perimenopausal hormonal therapies remains a prescribing challenge. It is therefore imperative that research and development continues to expand licensed options, and that these options are accessible to as many women globally as possible to avoid unnecessary suffering during the menopause transition. In the meantime, it is my thesis in this debate that with judicious use of hormone and cycle suppression therapies in the pre/perimenopause, distressing symptoms can be optimized whilst adverse effects are kept to a minimum.

NEUROKININ TARGETED THERAPIES – GENUINE ALTERNATIVES TO MHT?

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The wider the armamentarium of evidence based, licensed treatment options, the easier it is to individualise and personalise treatment. Personalisation of treatment leads to empowerment of women to make choices that are right for their own bodies. It therefore behoves us as HCPs to provide as much choice as possible to our patients. Women presenting with distressing menopause-related issues should therefore be offered evidence based, safe, effective non-hormonal as well as hormonal options as part of the treatment toolkit. Neurokinin Targeted Therapies (NKTs) such as fezolinetant and elinzanetant provide effective, safe, licensed treatment options for vasomotor symptom (VMS) management and potentially additional holistic benefits in women with VMS, such as alleviation of sleep disturbances, and improvement in quality of life. Although there are no head-to-head clinical trials comparing the efficacy and safety of NKTs to hormone therapies for VMS, post hoc network meta-analyses have shown similar efficacy. Previous 'alternative' interventions for menopausal problems such as SSRIs/SNRIs, gabapentin, oxybutynin have been unlicensed for VMS in most countries, with limited efficacy and significant adverse effects. There have been minimal adverse effects reported from the NKT studies such as somnolence and headaches; although liver enzyme elevations have been reported, there have been no liver injury cases in the controlled phase 3 randomised clinical trials (Hy's Law); there are no detectable hormonal effects on endometrium or breast tissues. NKTs are therefore safe for women with risk factors for estrogen sensitive malignancy such as breast cancer; elinzanetant is licensed in many countries for women with VMS associated with adjuvant endocrine therapies. NKTs may also be a good option for situations where there is reluctance to initiate MHT e.g. smokers, women > 60yrs and/or >10yrs after FMP, and in those with high BMI (>35). Patients seeking benefits in addition to VMS symptom relief e.g. genitourinary syndrome of menopause, musculoskeletal symptoms and bone benefits should still be guided towards systemic and topical MHT. However, whilst systemic MHT is highly effective, it is not without potential problems such as breakthrough bleeding, progestogen intolerance, VTE with oral preparations, and a possible small increase in breast cancer risk. NKTs should therefore be regarded as genuine alternatives to MHT for management of VMS and sleep disturbances associated with menopause.

OVULATION STIMULATION – DO WE TRUST SCIENTIFIC EVIDENCE?

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Controlled ovarian stimulation is one of the most evidence-rich interventions in reproductive medicine. Yet, several aspects of daily practice remain surprisingly disconnected from robust scientific evidence. The critical question is therefore not whether ovarian stimulation works, but whether the specific dose, drug, protocol or adjunct we prescribe improves patient-relevant outcomes. A particularly striking example is the use of high gonadotropin doses in predicted low responders. Despite the intuitive rationale that "more stimulation" may recruit more follicles, increasing gonadotropin doses beyond 300 IU/day is not recommended. Similarly, adjustment of the gonadotropin dose during stimulation has not been shown to improve efficacy or safety [1]. Another example is the increasing sophistication of dose individualization. AMH and AFC are excellent predictors of ovarian response, but prediction does not automatically translate into therapeutic benefit. Evidence that ovarian-reserve-test-based gonadotropin dosing improves live birth remains inconclusive [2]. Likewise, biological differences between gonadotropin preparations have not consistently translated into clinically meaningful differences in reproductive outcomes [1,4], and the routine addition of LH activity has not demonstrated a clear benefit in cumulative live birth [1,5]. The most revealing examples, however, may be the numerous "add-ons" proposed to optimize ovarian stimulation. Growth hormone, DHEA, testosterone, myo-inositol, metformin, aspirin and sildenafil have all been investigated on the basis of compelling biological hypotheses. Nevertheless, current evidence does not support their routine use in the populations in which they have been most extensively proposed [1,3,6–12]. The gap between biological plausibility and demonstrated clinical benefit is particularly evident in low responders, where several of these interventions continue to be proposed despite the absence of convincing evidence for improved live birth. The same tension emerges with increasingly complex stimulation strategies. DuoStim, for example, may increase the number of oocytes accumulated over a short period, but increased oocyte yield should not be confused with demonstrated improvement in cumulative live birth [1]. The challenge, therefore, is not to abandon individualized medicine, but to distinguish individualized medicine from individualized empiricism. In ovarian stimulation, the real question should not be "Can we stimulate differently?" but rather: "Do we have convincing evidence that stimulating differently helps our patients?"

IN VITRO DERIVED OOCYTES: FROM RESEARCH TO CLINICAL APPLICATION

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Premature ovarian insufficiency (POI) or total sterility can occur in girls and young women as a result of genetic defects, surgery, abdominal trauma, or more commonly as a side effect of radiation or chemotherapy treatment for cancers or haematological disease. POI has adverse clinical and psychological effects on women's health. Ovarian cryopreservation and banking can now be used to safeguard the fertility of girls and young women at high risk of sterility or POI. The stored tissue can be autografted back to the patient to restore fertility when she wishes to start her family. However, for girls and women with blood-born disease or cancers with a high risk of ovarian metastasis, ovarian autografting risks reseeding the cancer through the transplant. For these individuals biological parenthood remains out of reach unless fertility restoration can be safely achieved using *in vitro* technologies. The *in vitro* methods proposed for fertility restoration range from oocyte creation *in vitro* from the patient's own pluripotent stem cells (OPSC), to the generation of artificial ovaries (AO). Although there are reports of the success of OPSC and AO in mice these technologies remain decades away from therapeutic application in humans. In contrast, significant progress is now being made towards the goal of the complete *in vitro* growth and *in vitro* maturation (IVGM) of oocytes from primordial follicles to maturity. The therapeutic potential of IVGM is huge but the technology is challenging. Historically, the methods used for the *in vitro* production of mature metaphase II oocytes from murine primordial follicles have proved difficult to translate to human ovary due to key species difference in oogenesis and folliculogenesis. However, the recent development of multiphase IVGM strategies has supported the *in vitro* production of oocytes from large animals and human follicles. Once developmentally competent MII oocytes are produced they can be fertilized by IVF or ICSI with the production of healthy embryos that are disease-free and which can be safely transferred to establish the desired pregnancy. Extensive research is required to confirm the genetic and epigenetic health and normality of *in vitro*-derived oocytes and the embryos they derive before IVGM technology can be considered safe for therapeutic use. Furthermore, as the scientific innovation of IVGM advances so practioners and regulators must develop agile pathways, policies and regulatory frameworks that are robust enough to facilitate the emerging science whilst also providing clear governance for the safe clinical uptake of the technology.

WHY WE KEEP USING FETAL HEART RATE MONITORING — AN UNPROVEN TECHNOLOGY ASSOCIATED WITH A HIGH CAESAREAN SECTION RATE AND ITS RELATED COMPLICATIONS

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Continuous cardiotocography (CTG) entered clinical practice in the 1970s without prior randomised evidence, on the intuitive assumption that visualising the fetal heart rate would prevent intrapartum hypoxic injury. Fifty years later it monitors most labours worldwide, and the evidence remains uncomfortable. In the Cochrane review of 13 trials involving over 37 000 women, continuous CTG compared with intermittent auscultation did not reduce perinatal death (RR 0.86, 95% CI 0.59–1.23) and showed no difference in cerebral palsy (RR 1.75, 95% CI 0.84–3.63); it

halved neonatal seizures (RR 0.50, 95% CI 0.31–0.80) but increased caesarean section (RR 1.63, 95% CI 1.29–2.07) and instrumental vaginal birth (RR 1.15, 95% CI 1.01–1.33). Admission CTG likewise increases caesarean delivery (RR 1.20) without demonstrable neonatal benefit. The failure, however, lies less in the technology than in how we read it. Conventional classifications group features into "normal, suspicious, pathological" — or categories I–III — a taxonomy burdened by inter- and intra-observer variability, a positive predictive value for intrapartum hypoxia of roughly 30% and a false-positive rate approaching 60%. The adjuncts introduced to rescue it, from fetal blood sampling to ST analysis, have not reduced operative intervention. We nevertheless keep using it, for reasons organisational and medico-legal as much as clinical: intermittent auscultation demands one-to-one care few units can guarantee, the trace is the document later scrutinised in court, and the compromised fetus genuinely is identified — late, and among many who were never at risk. This is where physiological interpretation changes the terms of the debate. Rather than matching patterns to categories, it asks whether the fetus is fit to withstand the stresses of labour, then recognises the type of hypoxic stress — acute, subacute, gradually evolving or chronic — alongside patterns suggesting abnormal CNS function, always read within the clinical picture. Because recognition requires a combination or a sequence of features grounded in fetal pathophysiology, inter-observer agreement improves, and units implementing this approach have reported reductions in emergency caesarean section for suspected fetal compromise and in intrapartum-related hypoxic-ischaemic encephalopathy. Crucially, this is no longer a local initiative. FIGO is currently developing a new revision of its intrapartum fetal monitoring guidelines which, for the first time, incorporates the physiological approach into the recommended framework for interpretation and management; the work is ongoing within the international expert panel. So we keep using CTG not because it has been proven, but because the signal was never the problem: our reading of it was — and that is precisely what is now being redefined.

CAN WE ACCURATELY PREDICT MACROSOMIA? THE USE OF AI

Giuseppe Rizzo
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Fetal macrosomia complicates 5–10% of pregnancies and carries a well-recognised burden: prolonged labour, shoulder dystocia, birth trauma, caesarean delivery, postpartum haemorrhage, neonatal hypoglycaemia and long-term metabolic risk for the offspring. Accurate antenatal prediction should allow timely counselling and individualised planning of birth. In practice it remains elusive: estimated fetal weight (EFW) derived from conventional biometry is limited by operator dependence, formula error and the physiological variability of late-pregnancy growth, and models based on fetal biometry and maternal characteristics alone perform poorly. Two lines of evidence show where the residual predictive signal lies. In a prospective cohort of 2156 singleton pregnancies scanned at 36 weeks, macrosomia complicated 9.8% of pregnancies, and EFW alone yielded an AUC of 0.750, rising to 0.801 once maternal characteristics were added; incorporating umbilical vein blood flow normalised for abdominal circumference (UVBF/AC) increased the AUC to 0.892, with a parallel gain for birthweight >4000 g (0.724 → 0.770 → 0.851). The same haemodynamic marker is informative far earlier: at 11+0 to 13+6 weeks a model integrating parity, BMI and PAPP-A MoM had an AUC of 0.72 for large-for-gestational-age, improving to 0.79 with the addition of the UVBF Z-score and reaching 0.83 for birthweight >4000 g. Growth acceleration is therefore preceded by measurable changes in nutrient and oxygen delivery, and prediction improves when a physiological variable, rather than another anthropometric one, is added. This is precisely the setting in which artificial intelligence can contribute. Machine-learning algorithms integrating maternal characteristics, metabolic parameters and fetal ultrasound measurements have outperformed standard Hadlock-based approaches, with reported specificity of 82% and AUC up to 0.95; ensemble models combining random forest, XGBoost and LightGBM likewise outperform both single classifiers and the traditional formula, while deep learning applied directly to ultrasound images promises automated, operator-independent biometry and Doppler acquisition. Enthusiasm must be tempered. Most published models are retrospective and single-centre, developed on imbalanced datasets, rarely externally validated, seldom calibrated and almost never tested for their impact on clinical decisions or perinatal outcome; reporting frequently falls short of TRIPOD+AI standards, and performance degrades when models are transported to populations with different macrosomia prevalence and scanning practice. So, can we accurately predict macrosomia? Better than a decade ago, and best when AI is used not as a substitute for physiology but as a framework to combine maternal, biochemical, biometric and haemodynamic information. The next step is prospective, multicentre validation with maternal and neonatal morbidity, rather than birthweight alone, as the endpoint.

DEBATE: TUBECTOMY AT CESAREAN SECTION FOR RISK REDUCTION OF OVARIAN CANCER? CON

Nikolaos Thomakos, *Greece*

This presentation critically addresses whether bilateral salpingectomy at the time of cesarean section should be adopted as a routine strategy for ovarian cancer risk reduction. Although the tubal origin hypothesis of many high-grade serous carcinomas provides a strong biological rationale for opportunistic salpingectomy, cesarean delivery represents a distinct obstetric surgical setting in which maternal safety, hemostasis, operative exposure, and informed consent must remain the primary priorities. The presentation does not argue against salpingectomy itself, but against its unselected, routine use during all cesarean deliveries. Current evidence supports feasibility and short-term safety in selected cases, but important uncertainties remain regarding long-term oncologic benefit, ovarian function, menopause-related outcomes, and real-world implementation. Therefore, a selective, patient-centered approach is proposed, based on antenatal counseling, completed childbearing, documented informed consent, favorable intraoperative conditions, and a clear safety-based decision to abandon the procedure when necessary.
The key message is that salpingectomy at cesarean section may be appropriate for selected women, but it should not become an automatic add-on to cesarean delivery. Prevention should be offered with clinical judgment, ethical clarity, and appropriate surgical safeguards.

INDUCTION AFTER PREVIOUS CAESAREAN; THE CASE AGAINST.

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For women with an intact uterus, induction near term probably reduces stillbirth, and with modern methods of cervical ripening, does not increase caesareans. For women with a previous Caesarean, prostaglandin cervical ripening is contra-indicated because it increases the risk of uterine rupture about 15-fold (Lydon-Rochelle 2001). Some people have argued that uterine rupture is uncommon in modern practice and some small series have reported no cases. There have been no randomised trials comparing induction with awaiting spontaneous labour in this scenario but the latest Cochrane review (West 2017) comparing different methods of induction reported 17 (25 per 1000) ruptures out of 692 inductions with a previous caesarean. At least one trial was suspended because of this high rupture rate. The latest systematic review of observational studies (Rossi and Prefumo 2015) showed that induction increased Caesareans and uterine rupture. Since then, three further large studies (Stock et al 2013, Palatnick & Grobman 2015, Ukoha 2024) have shown mixed affects. Only one study (Ukoha 2024) showed reduced caesareans and for some reason deaths were not reported in that study. Few women request induction given the above information. Those that do should be informed that all licenced vaginal prostaglandin preparations (gel, pessaries, or removable tablets) are contraindicated in the presence of a Caesarean scar. The manufacturer of the only licenced mechanical method, the Cook Balloon, states that “safety & effectiveness […] has not been established among women with an obstetrical history of low transverse caesarean section”. NICE states that the two unlicenced methods (Foley catheter and oral misoprostol) should only be used when a licenced method is not available. Given the above it would seem wise to counsel against induction in the present of a caesarean scar, and request written consent from parents who wish to proceed despite such advice.

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PERSONALIZED OBESITY CARE: TRANSLATING NEW INSIGHTS INTO PRACTICAL TREATMENT STRATEGIES, INCLUDING PHARMACOTHERAPY

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In recent years, the number of people living with obesity has increased dramatically. Currently, more than half of the European adult population is living with overweight (59%), and 23% with obesity. Increased visceral adipose tissue is associated with more than 200 diseases and complications, including type 2 diabetes, cardiovascular disease, several forms of cancer, infertility, joint disorders, and depression. Obesity also plays a major role in many conditions specifically affecting women, including polycystic ovary syndrome (PCOS), pregnancy complications, menopause-related health problems, and breast cancer. Effective obesity care requires adequate screening for the underlying causes and phenotype of obesity. Tools such as www.checkcausesobesity.com can support systematic assessment of contributing biological, hormonal, psychological, social, lifestyle-related, medication-related, and environmental factors. Obesity is now recognized as a heterogeneous, multifactorial, chronic endocrine disease. In women, hormonal factors can substantially contribute to weight gain, particularly during and after pregnancy and during menopause. Chronic stress and psychosocial factors may also play an important role in the development and persistence of obesity. Following comprehensive assessment, treatment can be personalized and tailored to the individual patient. New scientific insights have shown that obesity is characterized by dysregulation of multiple adipose tissue- and gut-derived hormones, contributing to increased appetite, impaired satiety, and metabolic adaptations favoring weight regain. These mechanisms also help explain the well-known “yo-yo effect,” which is frequently experienced by women attempting long-term weight management. The field of obesity treatment is currently evolving rapidly. Alongside lifestyle interventions and bariatric surgery, major advances have been made in obesity pharmacotherapy. Several novel anti-obesity medications are already available and reimbursed in parts of Europe, while many additional therapies targeting multiple hormonal pathways are in advanced clinical development. This presentation will provide an overview of current insights into obesity in women, practical diagnostic approaches, and the rapidly expanding landscape of effective and emerging obesity treatments.

DEEP LEARNING VERSUS MANUAL MORPHOLOGY-BASED EMBRYO SELECTION IN IVF: RESULTS OF THE LARGEST PUBLISHED RCT

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Embryo selection by morphology is subjective, and embryologists often disagree on which blastocyst to transfer. Deep learning algorithms such as iDAScore rank embryos automatically from time-lapse videos, but on transferred blastocysts their retrospective discrimination is modest (AUC 0.67). VISA, a double-blind noninferiority randomised controlled trial in 14 clinics in four countries, randomised 1,066 women aged <42 years with at least two blastocysts to single blastocyst transfer selected by iDAScore or by standardised morphology. Clinical pregnancy rates were 46.5% versus 48.2% (risk difference −1.7%, 95% CI −7.7 to 4.3). Because the lower limit crossed the −5% margin, noninferiority was not demonstrated: an inconclusive result, not evidence of inferiority. Live birth rates were 39.8% versus 43.5%, with no safety signal. The algorithm chose the embryologist's embryo in two of three cases and cut assessment time about ten-fold. Embryologists outperformed the planning assumption (48.2% vs 35.4%), leaving the trial underpowered; an exploratory signal favouring morphology in freeze-all cycles requires confirmation. RCTs of other selection algorithms (KIDScore D5, SelecTIMO) likewise showed no gain. Today, deep learning offers standardisation and efficiency, not higher pregnancy rates. Because algorithms evolve faster than trials, adaptive and registry-based designs are needed. The future lies with the embryologist working with the machine.

DEBATE: CLAIMS OF LOWER MISCARRIAGE RATE AND SPEED UP OF THE TIME TO PREGNANCY WITH PGT-A (PRO) THIS JUSTIFIES THE COST AND UTILIZATION OF PGT-A!

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Randomised controlled trials (RCTs) show that preimplantation genetic testing for aneuploidy (PGT-A) does not increase cumulative live birth. This is expected: a selection test cannot create euploid embryos, and ESHRE agrees that live birth is not the right outcome for PGT-A. The real question is what patients endure on the way. Re-analysing seven RCTs (3,317 women), PGT-A was associated with 4.4 fewer clinical miscarriages per 100 women randomised (95% CI −8.2 to −0.7; REML with Hartung–Knapp adjustment), about one per 23 women; the relative estimate was less precise. In Lin 2025, PGT-A meant 12 fewer clinical pregnancies but 17 fewer losses and 5 more live births at first transfer; ESTEEM achieved the same number of births with 177 versus 249 transfers. Calendar time to live birth did not differ; the gain is fewer futile cycles. The trials enrolled mostly young, good-prognosis women and were underpowered for miscarriage: absence of evidence, not evidence of absence, for older women. Each miscarriage carries psychological, surgical and time costs; in women ≥35 years with two blastocysts, preventing one was estimated to cost €3,525. PGT-A should not be routine. It is justified for women ≥35–38 years with at least two blastocysts, recurrent loss or repeated implantation failure, in quality-assured laboratories, and judged on losses and futile transfers per woman.

ORAL PRESENTATION ABSTRACTS

ORAL PRESENTATION SESSION 01
GYNECOLOGY: GYNECOLOGY

EARLY DIFFERENTIATED VULVAR INTRAEPITHELIAL NEOPLASIA WITH MICROINVASION IN A 46-YEAR-OLD IMMUNOSUPPRESSED WOMAN

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***Problem statement**:* Early detection of vulvar premalignant disease remains clinically challenging when presentation occurs outside the usual demographic and risk profile. Persistent leukoplakic vulvar lesions in younger women are frequently attributed to benign inflammatory conditions, particularly when HPV testing is negative and symptoms partially mimic chronic dermatoses. In immunosuppressed patients, altered immune surveillance may modify disease behaviour and obscure typical progression patterns. The absence of specific guidance for managing refractory vulvar lesions in this subgroup creates uncertainty regarding biopsy timing, margin management, and follow-up strategies. This gap may contribute to delayed diagnosis of early invasive transformation and suboptimal risk stratification in clinically atypical cases. ***Methods**:* A 46-year-old nulligravid woman was referred from gynecology due to persistent vulvar leukoplakia, more pronounced in the fourchette and inner surface of the right labium majus, with a small painful ulcerated area. She had previously been treated with high-potency topical corticosteroids

(clobetasol and dermovate) without clinical improvement. Her medical history included hypersensitivity pneumonitis treated with Rituximab and Deflazacort. Transvaginal ultrasound showed a fibromyomatous uterus and a functional follicle in the left ovary. Cervicovaginal cytology was negative for intraepithelial lesion or malignancy, and HPV testing was negative. Vulvoscopy revealed diffuse leukoplakia and a firm, non-ulcerated erythematous lesion (2 × 2 cm) on the right labium minus, which was biopsied. ***Results:*** Histopathological examination revealed differentiated vulvar intraepithelial neoplasia with foci suspicious for microinvasion. The maximal depth of invasion was 0.2 mm. The excision margins were intersected by intraepithelial neoplasia but free of invasive carcinoma. No lymphovascular invasion was identified. The lack of response to topical corticosteroids and the coexistence of immunosuppression were considered possible contributors to disease persistence. ***Conclusion:*** This case highlights an unusual presentation of dVIN with microinvasion in a relatively young, immunosuppressed woman. Although typically a condition of postmenopausal patients, dVIN should be considered in younger women presenting with persistent vulvar leukoplakia unresponsive to standard therapy. Early biopsy and histopathological evaluation remain essential for prompt diagnosis and management, especially in individuals under long-term immunosuppressive treatment such as Rituximab.

SACROCOLPOPEXY REVISITED: A DECADE OF EXPERIENCE - DOES LAPAROSCOPY DELIVER THE SAME RESULTS WITH LESS MORBIDITY?

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Problem statement: Pelvic organ prolapse (POP) is a prevalent gynecological condition that can significantly affect quality of life. Abdominal sacrocolpopexy has traditionally been considered the gold-standard surgical treatment for apical prolapse due to its high anatomical success and durability. Laparoscopic sacrocolpopexy has emerged as a minimally invasive alternative, potentially reducing postoperative morbidity and hospital stay. This study aimed to compare laparoscopic and open sacrocolpopexy with up to 10 years of follow-up, focusing on hospital stay, perioperative complications, prolapse recurrence, patient satisfaction, and long-term complications. ***Methods:*** A retrospective cohort study included women undergoing surgical correction of apical POP at a Portuguese regional hospital centre between January 2013 and June 2016, with long-term follow-up extending up to 10 years. Patients were grouped according to surgical approach: open or laparoscopic sacrocolpopexy. The open group included procedures with or without concomitant total abdominal hysterectomy. Demographic and clinical data, hospital stay, perioperative complications, and postoperative outcomes were retrieved from medical records. Long-term follow-up was complemented by telephone interview, including prolapse recurrence, postoperative complications, patient satisfaction, and pelvic floor-related quality of life assessed with the Pelvic Floor Impact Questionnaire–Short Form 7 (PFIQ-7). ***Results***: Thirty-six women were included: 27 underwent open sacrocolpopexy, including 12 with concomitant hysterectomy, and 9 underwent laparoscopic sacrocolpopexy. Apical prolapse recurrence occurred in 2 patients (5.6%): 1 in the open group (3.7%) and 1 in the laparoscopic group (11.1%). Mean hospital stay was 6.04 days after open surgery and 3.44 days after laparoscopy. One laparoscopic procedure required conversion to laparotomy. Postoperative complications occurred predominantly after open surgery and included two wound dehiscences, one surgical-site infection, one nosocomial pneumonia, and two incisional hernias. PFIQ-7 data were available for 63.9% of the cohort, with higher mean scores in the laparoscopic group. ***Conclusion*:** Laparoscopic sacrocolpopexy was associated with shorter hospital stay and fewer postoperative complications, while overall apical prolapse recurrence remained low. These findings support laparoscopy as a valid minimally invasive alternative, although larger comparative studies are needed to confirm long-term outcomes.

CURRENT TRENDS AND CROSS-NATIONAL VARIATION IN LAPAROSCOPIC HYSTERECTOMY RATES IN EUROPE: A EUROSTAT – BASED ANALYSIS

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Problem statement: According to NICE and ACOG guideliness, minimaly invasive techniques for hysterectomy should be the first line choice of surgery for benign pathologies whenever feasible. Laparoscopic hysterectomy (LH) is associated with quicker recovery, shorter hospitalization and lower rate of complications compared to abdominal hysterectomy. The overall rate of LH has significantly increased worldwide, however, some inconsistencies remain between different countries and regions. ***Methods***: This study was executed by analysing the EUROSTAT open data for hysterectomies and LH in different European countries from 2015 to 2023. The countries from which the required data was available were grouped into 4 European regions based on United Nations geoscheme (Northern Europe: Finland, Iceland, Ireland, Lithuania, Norway, Sweden; Eastern Europe: Bulgaria, Hungary, Poland, Romania, Slovakia; Southern Europe: Croatia, Italy, Portugal, Slovenia, Spain; Western Europe: Austria, Belgium, France, Germany, Netherlands, Switzerland). ***Results***: The data for hysterectomies rates was available from 21 European countries. The rate of LH among all the analyzed countries increased from 31,1 % in 2015 to 48,5 %. Analysis of individual countries revealed that the highest LH rate was observed in Finland (60,0 % in 2015 and 75,3 % in 2023) meanwhile the lowest was in Romania – 2,3 % in 2015 and 7,63 % in 2023. The biggest change was observed in Norway: proportion of LH has increased by 30,1 % during the analysed period. When comparing different European regions, Northern and Western European countries have higher LH rate than European average, meanwhile the rate in Eastern and Southern Europe was below European average during the analysed years (Figure 1). ***Conclusion***: The proportion of laparoscopic approach to hysterectomy has been steadily increasing in Europe through 2015 – 2023. However, the rate of LH greatly varies between different European countries and regions. Further studies of national registers and insights of different countries' healthcare systems could provide explanation for observed discrepancies. The limitation of our study is lack of data subgroup for vaginal hysterectomies as it is not provided in EUROSTAT open data.

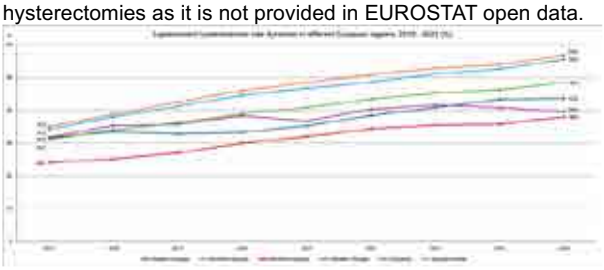


Figure 1. Laparoscopic hysterectomies rate dynamics in different European regions, 2015 – 2023.

THE MEDIATING ROLE OF GENITAL SELF-IMAGE AND DYADIC ADJUSTMENT IN THE RELATIONSHIP BETWEEN MENOPAUSAL SYMPTOMS AND SEXUAL QUALITY OF LIFE AMONG POSTMENOPAUSAL WOMEN

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Problem statement: The relationship between menopausal symptoms and sexual quality of life (SQOL) in postmenopausal women is complex and may be influenced by psychosocial factors beyond symptom severity. This study investigated the mediating roles of genital self-image (GSI) and dyadic adjustment (DA), individually and in series, within a biopsychosocial approach. ***Methods***: This descriptive-predictive study was conducted between September 2025 and February 2026 at the Obstetrics and Gynecology Outpatient Clinic of a university hospital with 212 postmenopausal women. Data were collected through face-to-face interviews using a Descriptive Characteristics Data Collection Form, the Menopause Rating Scale (MRS), Female Genital Self-Image Scale (FGSIS), Revised Dyadic Adjustment Scale (RDAS),

and Sexual Quality of Life-Female Questionnaire (SQOL-F). Serial mediation analysis was used to test whether menopausal symptoms predicted SQOL directly and indirectly through GSI and DA. ***Results***: The mean participant age was 55.82±4.36 years. Mean MRS, FGSIS, RDAS, and SQOL-F scores were 23.21±7.06, 19.89±4.68, 48.56±10.92, and 55.24±21.09, respectively. Total SQOL-F scores were not significantly correlated with total MRS scores (r=-0.076; p=0.268) but were positively correlated with total FGSIS scores (r=0.239; p<0.001) and total RDAS scores (r=0.586; p<0.001). Menopausal symptoms did not significantly predict GSI, DA, or SQOL, and neither the total nor direct effect of symptoms on SQOL was significant. GSI positively predicted DA (β=0.142; p<0.05) and SQOL (β=0.160; p<0.01), whereas DA was the strongest direct predictor of SQOL (β=0.562; p<0.001). No indirect or serial mediation effects were statistically. ***Conclusion***: In this sample, sexual quality of life in postmenopausal women was not directly explained by menopausal symptom severity; instead, genital self-image and, particularly, dyadic adjustment were key psychosocial correlates of sexual quality of life. Nursing interventions for postmenopausal sexual health should extend beyond symptom management to strengthen the genital self-image and support dyadic adjustment through holistic approaches.
Disclosure of interest: *None declared*

NON-PUERPERAL UTERINE INVERSION SECONDARY TOPROLAPSED SUBMUCOUS MYOMA IN A PRIMIPAROUSUNDERWENT SUBTOTAL VAGINAL HYSTERECTOMY: A CASE REPORT

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Non-puerperal uterine inversion (NPUI) is a rare condition occurring on 17 % of the reported cases of uterine inversion worldwide. In the local setting, only one published case of uterine inversion managed with vaginal hysterectomy has been reported in the literature. This is a case of a 33 year old Gravida 2 Para 1 (1011) presented with prolonged and profused menstrual bleeding. Transvaginal ultrasound revealed prolapsed submucous myoma and was eventually scheduled for vaginal myomectomy. Pelvic exam was suggestive of uterine inversion. Hence, manual reposition was attempted but failed. Therefore, the surgical team proceeded with subtotal vaginal hysterectomy. Diagnosis of uterine inversion is usually clinical and could be challenging, however timely detection would result in better surgical planning. Lastly, choice of management would depend on patient's clinical profile. It is imperative that the management of choice would result to a lesser risk of morbidity and complications.
Keywords*: Non Puerperal Uterine Inversion, Submucous myoma, Vaginal Hysterectomy*

REGRESSION OF ENDOMETRIAL EXPLANTS IN RATS TREATED WITH BEVACIZUMAB

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Problem statement: Angiogenesis is considered to be a key factor in the progression of endometriosis, one of the most common benign gynecologic conditions. Bevacizumab is a medication that inhibits vascular endothelial growth factor A (VEGF-A) and decelerates the growth of new blood vessels. We aimed therefore to investigate the effects of bevacizumab, as an antiangiogenetic factor on endometrial explants in the rat endometriosis model. ***Methods***: Data from 23 Wistar Rats with experimentally induced endometriosis were collected and analysed. Animals were evaluated three weeks after surgical induction of endometriosis and randomly allocated in to 3 groups: a group that received 40 ml NaCl 0.9% (control; n = 7) and two groups that were treated with different dosages of bevacizumab (High-dose group-4mg/kg per week; n = 8 and Low-dose group-2.5 mg/kg per week; n = 8) intraperitoneally for 3 weeks. At the end of the treatment, endometriotic lesions were removed and evaluated regarding number of lesions, changes in mean volume, presence of endometrial tissue in microscopy and measurement of VEGF expression by a semiquantitative analysis for the intensity of immunohistochemical reactivity. All significance tests were two-sided and statistical significance was set at 0.05. Statistical analyses were performed using SPSS version 27.0. ***Results***: Three weeks of treatment with bevacizumab statistically significantly decreased the number of implants size compared with control only in the high-dose group (p<0.001). (Table A). The degree of change differed significantly among the three groups (p=0.034), with the high-dose group showing the greatest reduction between the two measurements. A significant decrease at the mean volume of implants was observed in the low-dose group (p<0.001) and the high-dose group (p<0.001), whereas in the control group, an increasing trend was observed (p<0.100). The degree of change differed significantly among the three groups (p<0.001), with the high-dose group showing the greatest reduction between the two measurements. Histologic examination of the implants indicated mostly atrophy and regression, and semiquantitative analysis showed a significant reduction in VEGF expression in both the bevacizumab treated animals as compared to controls. ***Conclusion***: Bevacizumab caused both regression and atrophy of the endometriotic lesions in a rat endometriosis model.

	Number of lesions							
	1st measurement		2nd measurement		Change			
Group	Mean (SD)	Median (IQR)	Mean (SD)	Median (IQR)	Mean (SD)	Median (IQR)	p[1]	p[2]
Control	3,71 (0,49)	4 (3 – 4)	3,14 (0,69)	3 (3 – 4)	-0,57 (0,53)	-1 (-1 – 0)	0,465	0,034
High dose	3,88 (0,35)	4 (4 – 4)	1,5 (1,2)	1,5 (0,5 – 2,5)	-2,38 (1,19)	-2 (-3,5 – -1,5)	<0,001	
Low dose	3,75 (0,46)	4 (3,5 – 4)	3,13 (1,46)	4 (2,5 – 4)	-0,63 (1,6)	0 (-1 – 0)	0,183	
p[3]	0,753		0,042					

THE EFFICACY OF DEPOT MEDROXYPROGESTERONE ACETATE FOR TREATMENT OF ADENOMYOSIS

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Problem statement: To evaluate the effectiveness of depot medroxyprogesterone acetate (DMPA) in improving adenomyosis-associated dysmenorrhea. ***Methods***: This retrospective cohort study included patients diagnosed with adenomyosis by USG or MRI who had clinical dysmenorrhea and underwent treatment with Depo-medroxyprogesterone acetate (DMPA) between Jan 2006 and December 2024, with at least 2 doses. Clinical pain after treatment was evaluated using Descriptive analysis. ***Results***: Among 110 cases of adenomyosis with clinical dysmenorrhea and were treated with depot medroxyprogesterone acetate, Pain relief was observed as early as after the first DMPA injection. Following the first dose, 53.6% of patients reported complete resolution of pain, while an additional 43.6% experienced improvement in pain severity. Only 2.8% of patients reported no change in pain, and no patients experienced worsening pain. With continued treatment, the proportion of patients achieving complete pain relief increased progressively from 53.6% after the first dose to 62.7%, 70.0%, and 71.6% after the second, third, and fourth doses, respectively, reflecting the transition of many patients to complete pain resolution. No patients reported worsening pain throughout the treatment period. Regarding treatment safety, abnormal uterine bleeding was the most frequently reported adverse effect, occurring in 96.4% of patients. A small proportion of patients experienced weight gain (3.6%), with a mean weight increase of 2.1 kg after the complete 4 doses of DMPA. Acne was reported in 1.8% of patients. No serious adverse events were observed during the study period. ***Conclusion***: DMPA effectively reduced adenomyosis-associated dysmenorrhea, with significant improvement after the first dose and sustained symptom control through four treatment doses; the proportion of patients with complete pain resolution further increased to 71.6%. Despite frequent bleeding problems, most patients tolerated treatment, and no serious adverse event. DMPA may be considered a safe, effective, and affordable therapeutic option for symptomatic adenomyosis, particularly in settings where access to other hormonal therapies is limited.

OVARIAN LYMPHANGIOMA PRESENTING AS OVARIAN TORSION IN A REPRODUCTIVE-AGED WOMAN: THE FIRST LOCAL CASE REPORT IN THE PHILIPPINES

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Problem statement: Ovarian lymphangioma is an extremely rare benign tumor arising from lymphatic vessels, with only 23 reported cases worldwide and no previously documented local cases. Diagnosis is challenging because imaging findings may mimic other cystic ovarian neoplasms. Accurate diagnosis is important because recurrence and malignant transformation to lymphangiosarcoma have been reported. We present the first locally reported case in the Philippines of ovarian lymphangioma presenting as ovarian torsion in a reproductive-aged woman. ***Methods***: A 35-year-old G2P2 (2002) presented with acute right lower quadrant pain radiating to the lower back. Transvaginal ultrasound revealed an 8.0 × 7.57 × 7.44 cm multilocular cystic right ovarian mass with absent Doppler flow and a 2.2% malignancy risk by International Ovarian Tumor Analysis (IOTA) AdNEX model. Due to a surgical abdomen, exploratory laparotomy was performed. Intraoperatively, the right ovarian mass was gangrenous and twisted twice around its pedicle. Detorsion was attempted but unsuccessful, prompting right salpingo-oophorectomy. Histopathologic examination and immunohistochemistry were subsequently performed. ***Results***: Gross examination demonstrated a multiloculated ovarian mass filled with serous and hemorrhagic fluid. Microscopy revealed multiple dilated thin-walled cystic spaces lined by flattened endothelial cells and filled with eosinophilic lymphatic fluid, consistent with lymphangioma. Immunohistochemistry showed strong positivity for D2-40 and negativity for cytokeratin, confirming lymphatic endothelial origin. Peritoneal fluid cytology was negative for malignant cells. The patient had an unremarkable postoperative recovery and was advised close surveillance. ***Conclusion***: Ovarian lymphangioma should be considered in the differential diagnosis of multilocular cystic ovarian masses, even among reproductive-aged women presenting with ovarian torsion. Histopathologic examination with immunohistochemistry, particularly D2-40 staining, remains essential for definitive diagnosis. Early recognition and appropriate surgical management are important because of the rare potential for recurrence and malignant transformation.
Disclosure of interest: *None*

PHOTOTHERAPY FOR RECURRENT VULVOVAGINITIS: PROMISE OR UNCERTAINTY? A SYSTEMATIC REVIEW AND META-ANALYSIS

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Problem statement: Recurrent vulvovaginal candidiasis (RVVC) and recurrent bacterial vaginosis (BV) are common conditions associated with frequent relapse despite standard antimicrobial therapy. Phototherapy, including blue light-emitting diode (LED) and LASER-based modalities, has emerged as a potential non-pharmacological treatment; however, its efficacy and safety remain uncertain. ***Methods***: We searched PubMed, Embase, and Cochrane Central Register of Controlled Trials (CENTRAL) for studies evaluating phototherapy in women with recurrent vulvovaginitis (RVV; three or more episodes within 12 months). Primary outcomes were recurrence, overall symptom improvement, and adverse events. Random-effects proportional meta-analyses using generalized linear mixed models were performed. ***Results***: Five studies comprising 306 women with RVV were included, of whom 79 (25.8%) received blue LED therapy and 227 (74.2%) received LASER-based therapy. Follow-up ranged from 28 to 270 days. Combined blue LED and LASER yielded a pooled symptom improvement rate of 71.9% (95% CI, 38.7-91.2%) and a recurrence rate of 23.5% (95% CI, 11.4-42.3%). Adverse events were uncommon overall (7.4%), with no serious treatment-related complications. Subgroup analyses by concomitant antimicrobial therapy showed no significant differences in recurrence (19.6% vs. 30.5%; p = 0.42) or adverse events (0.0% vs. 12.2%; p = 1.00). Modality subgroup analyses showed higher rates of vulvar pruritus (40.1% vs. 12.9%; p = 0.048) and adverse events (33.5% vs. 2.8%; p = 0.0001) with LASER than LED. Symptom improvement was higher among studies with follow-up under 90 days (78.5%) than at ≥90 days (59.2%). ***Conclusion***: These findings suggest that phototherapy may improve symptoms in women with recurrent vulvovaginitis, although recurrence remains common and symptom benefit may wane beyond 90 days. A possible safety difference favoring LED over LASER was observed but should be interpreted cautiously, as the LASER subgroup comprised a single trial, and requires confirmation. Evidence overall is limited by small sample sizes, heterogeneous designs, and absence of controls; these findings are hypothesis-generating, and adequately powered randomized trials with active comparators and follow-up of at least 12 months are needed before phototherapy can be recommended in clinical practice.
Disclosure of interest: *None declared.*

LONGSHORE DRIFT: FINDINGS FROM COMMUNITY LISTENING WORKSHOPS EXPLORING PELVIC PAIN AND ENDOMETRIOSIS IN WOMEN EXPERIENCING COASTAL DEPRIVATION IN SOUTH WEST ENGLAND

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Problem statement: Endometriosis affects up to 1 in 7 women of childbearing age. White middle-class women with pelvic pain are over-represented in research and clinical settings, while little is known about the experiences of women from other sociodemographic groups. UK coastal regions face significant deprivation and complex health inequalities. To our knowledge, there are no existing publications focused on women living with pelvic pain and endometriosis in UK coastal communities. ***Methods***: Community listening workshops facilitated discussion on experiences and understanding of pelvic pain, including endometriosis, and reflections on healthcare interactions from the perspective of women living in Weston-Super-Mare. The researchers developed relationships with existing women's groups serving the local population, which is in the most deprived 5% of the UK. Notes from the workshops underwent thematic analysis, with triangulation from the research team and group leaders. The findings influenced clinical practice and community engagement by local primary care providers. ***Results***: At the time of submission the study is ongoing. Further community listening workshops are planned to bring the total number of participants to 60. Participants see the workshops as a positive opportunity to improve local population health. There are four emerging themes from our preliminary analysis. First, participants report a lack of access to information they trust. Second, this is compounded by a lack of trust in healthcare professionals and, third, a high incidence of trauma. Finally, participants typically had low aspirations for their health-related quality of life. ***Conclusion***: Our findings demonstrate clear unmet health and healthcare needs for women experiencing coastal deprivation. Local general practice can play a pivotal role by providing trauma-informed continuity of care to support these women pursuing diagnosis and treatment for pelvic pain and endometriosis. In highlighting this example we aim to encourage further research and community engagement efforts to tackle coastal health inequalities.

EVALUATION OF SEXUAL FUNCTION AND QUALITY OF SEXUAL LIFE IN WOMEN WITH MYOCARDIAL INFARCTION

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Problem statement: Myocardial Infarction (MI) significantly affects not only the physical health of women, but also their psychological and social lives. Moreover, MI can lead to a negative impact on sexual life. This study was conducted to evaluate the sexual functions and sexual quality of life of women who have experienced MI. ***Method***: This descriptive-analytical study was conducted with 205 women who applied to the Cardiology Outpatient Clinic. Women who had experienced a MI at least two months prior were included in the study. The data was collected using the "Personal Information Form", "Female Sexual Function Index (FSFI)", and the "Sexual Life Quality Scale-Female (SQOL-F)". The Mann-Whitney U test, Kruskal-Wallis test, Independent-samples t-test, and

Spearman correlation analyses were used to analyze the data. ***Results***: The mean total scores of the FSFI and the SQOL-F were 19.15 ± 6.79 and 49.17 ± 17.02, respectively. Significant differences were found between FSFI and SQOL-F scores and the variables of age, education level, spouse`s education level, spouse`s occupation, number of living children, presence of chronic disease, medication use, and history of sexual problems before Myocardial Infarction ($p<0.05$). According to regression analysis, age, spouse's education level, occupation, medication use, and FSFI score explain 47.6% of the total score. A strong positive correlation was found between FSFI and SQOL-F, which was ($r=0.714$; $p<0.001$). ***Conclusions***: It was found that sexual functions are negatively affected in most women who have experienced a MI, and their sexual quality of life has decreased.

Keywords: *Myocardial Infarction, Sexual Function, Sexual Quality of Life, Women*

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DOES UTERINE CAVITY WIDTH AND FUNDAL MYOMETRIAL THICKNESS DEPEND ON NUMBER OF DELIVERIES?

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Problem statement: The aim of this study was to investigate whether number of deliveries have any influence on uterine cavity width and fundal myometrial thickness. ***Methods***: We included 458 patients in this study. Uterine cavity width and fundal myometrial thickness were measured after obtaining of 3D scan of the uterus. Transvaginal 3D scan of the uterus was obtained in two directions sagittal and transversal. Rendering plane was set through the midline section of the endometrium. Uterine cavity width was measured at the level of tubal orifice and myometrial thickness was measured from the uterine surface to the fundal endometrium level. Statistical analysis was performed using standard parametric tests. ***Results***: Uterine cavity width measured from sagittal and also from transversal 3D volume did not show significant change by increasing number of deliveries (nulliparous 31,74mm, one 32,38 mm, two and more 33,28mm in sagittal direction, p=0,051; and 31,36mm 31,75mm and 32,7 mm respectively in transversal direction, p=0,07). Fundal myometrial thickness showed significant increase with number of deliveries either in sagittal or transversally obtained 3D volumes. (nulliparous 11,25mm, one 12,82mm, two and more 14,11mm in sagittal direction, p<0,001, and 11,20mm, 12,83mm, and 14,08 mm respectively in transversal direction, p<0,001). ***Conclusion***: According to our study and analyzed 916 3D volumes of the uterus, we did not obtain significant changes in uterine cavity width when compared with different number of deliveries. Regarding fundal myometrial thickness we confirmed that uterine wall thickness significantly increased with increasing number of deliveries.

ORAL PRESENTATION SESSION 02
FETOMATERNAL MEDICINE: MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT

ESTIMATING THE IMPACT OF RAMADAN FASTING DURING PREGNANCY ON PRETERM BIRTH AND MATERNAL AND FETAL OUTCOMES: A COHORT STUDY

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Problem statement: Ramadan fasting involves abstinence from food and drink from dawn to sunset. Although pregnant women are exempt, many choose to fast. The effect of Ramadan fasting on pregnancy outcomes remains uncertain, with conflicting evidence regarding preterm birth and other maternal and neonatal outcomes. The study aim is to estimate the impact of Ramadan fasting during pregnancy on preterm birth and related maternal and neonatal outcomes. ***Methods***: A prospective cohort study was conducted in Riyadh, Saudi Arabia. Women were classified according to fasting status and trimester of fasting exposure. The primary outcome was PTB. Secondary outcomes included hospital admission, gestational diabetes, gestational hypertension, fetal growth restriction, NICU admission, birth weight, and Apgar score. Bivariate analyses and logistic regression were performed. ***Results***: A total of 572 women were included. Bivariate analysis showed no significant differences between fasting and non-fasting women in PTB or other outcomes, except for Apgar score (P=0.047), which was more frequently abnormal among fasting women. Fasting during the second and third trimesters was associated with hospital admission during Ramadan (P=0.024). Logistic regression showed no significant association between fasting and PTB (OR=0.75, 95% CI: 0.43–1.28), hospital admission, gestational diabetes, gestational hypertension, fetal growth restriction, or NICU admission. Fasting during the first or second trimester was associated with higher odds of abnormal Apgar score (OR=2.68, 95% CI: 1.06–6.79). ***Conclusions***: Ramadan fasting during pregnancy was not associated with an increased risk of PTB or most maternal and neonatal complications. Further studies are needed to confirm the observed association with abnormal Apgar scores.

THE PRENATAL DIAGNOSIS OF THE UMBILICAL CORD KNOT CHANGES DRAMATICALLY THE NEONATAL PROGNOSIS

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Problem statement: The umbilical cord knot complicates 0.3% to 1.2% of pregnancies. It represents a rare, but important pathology as it has been associated with adverse perinatal outcomes such as small for gestational age fetuses, lower Apgar scores at birth compared with normal pregnancies, fetal hypoxia, as well as intrauterine fetal death. Current evaluation using color Doppler, power Doppler and even 3D ultrasonography has facilitated the prenatal diagnosis of true umbilical cord knot. Even with this outstanding prenatal diagnosis tool, there are ethical questions that do not have the answer. There are controversies regarding the reporting the existence of a true umbilical cord knot, as well as the follow-up and management of this entanglement, associated with a high risk of stillbirth. ***Methods***: We performed a literature search using the"(umbilical cord knot AND (management OR prenatal diagnosis))" search criteria in PubMed and Web of Science databases, as well as examined for original articles, respectively, randomized clinical trials as well as clinical trials published between January 2011 and August 2026, in English language which involve human subjects. We also included case reports, as it represents a rare pathology in the field and the initial search was scarce. We identified 43 articles. ***Results***: After excluding 5 duplicates, all data were independently recorded by two reviewers in separate databases and only compared at the end of the reviewing process to limit the selection bias. The quality of the studies was assessed independently by two reviewers, with the Newcastle–Ottawa Scale. The prenatal diagnosis of true umbilical cord knot was performed using the well-known ultrasonography criteria. Pregnancy surveillance, as well as pregnancy management were heterogenous among published data, due to the lack of clinical practice guidelines. ***Conclusion***: Due to the uncertainly obscure prognosis of true umbilical cord knot, it represents a controversial subject in obstetrics, that requires the need of strong clinical practice guidelines regarding prenatal surveillance and also birth management, especially when choosing the birth route. In response to this issue, we would like to present our experience with 20 prenatally diagnosed cases and our proposal for standardizing obstetric management.

THE EXPECTED GESTATIONAL DECLINE IN CIRCULATING MAGNESIUM IS ABSENT IN PRE-ECLAMPSIA: FINDINGS FROM BLACK SOUTH AFRICAN WOMEN

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Problem statement: Magnesium contributes to vascular tone, endothelial function and blood pressure regulation, but its relationship with pre-eclampsia remains unclear. Circulating magnesium normally declines as pregnancy progresses, yet

population-specific data from African women are limited. We investigated whether this physiological pattern differs in pregnancies complicated by early- or late-onset pre-eclampsia. ***Methods***: A hospital-based cross-sectional analytical study included 252 Black South African pregnant women classified as first-visit normotensive (n=94), term normotensive (n=67), early-onset pre-eclampsia (EOPE; n=49) or late-onset pre-eclampsia (LOPE; n=42). Serum magnesium was measured and hypomagnesaemia defined as <0.66 mmol/L. Differences between groups were assessed using analysis of variance and chi-square testing. Multinomial logistic regression examined associations between pregnancy group and magnesium status, obesity, HIV status and gestational age. ***Results***: Serum magnesium declined significantly between first-visit and term normotensive pregnancies (0.78±0.08 vs 0.72±0.10 mmol/L; p<0.001). In contrast, magnesium concentrations remained relatively preserved in EOPE (0.78±0.12 mmol/L) and LOPE (0.76±0.09 mmol/L). Hypomagnesaemia was most prevalent among term normotensive women (23.9%), compared with 4.3% at the first normotensive visit, 12.2% in EOPE and 9.5% in LOPE (p=0.002). Hypomagnesaemia was associated with lower odds of pre-eclampsia group membership (OR 0.216, 95% CI 0.065–0.721; p=0.013). Obesity was associated with higher odds of EOPE (OR 3.77, 95% CI 1.35–10.53) and LOPE (OR 3.39, 95% CI 1.36–8.47). HIV status was not significantly associated with pregnancy group. ***Conclusions***: Pre-eclampsia was characterised not by lower circulating magnesium, but by an apparent absence of the physiological gestational decline observed in normotensive pregnancy. This counterintuitive finding suggests altered magnesium homeostasis in pre-eclampsia and cautions against interpreting circulating magnesium concentrations as a simple marker of deficiency. Longitudinal studies incorporating renal function and dietary magnesium are required to determine the temporal and mechanistic significance of this pattern.

CERVICAL MATURITY PHENOTYPING IN PREGNANCY: FROM ELASTOGRAPHY TO A BIOCHEMICAL TEST

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Problem statement: Cervical remodeling is a dynamic biomechanical, vascular and molecular process preceding labor. However, routine assessment still relies primarily on cervical length and the subjective Bishop score, which may fail to detect remodeling before anatomical shortening becomes evident. We aimed to develop and validate an objective ultrasound-based classification of cervical maturity and investigate its vascular and molecular correlates. ***Methods***: In a derivation cohort of 346 pregnant women at 7–41 weeks (577 transvaginal examinations), E-Cervix elastography parameters—cervical length (CL), hardness ratio (HR), elasticity contrast index (ECI), internal os strain (IOS), and external os strain (EOS)—were used to identify three cervical maturity phenotypes (immature, ripening, and mature) by cluster analysis using Mahalanobis distance. The resulting CELASTO classification algorithm was evaluated in an independent cohort of 384 women (534 examinations; 1,111 examinations overall). Three-dimensional power Doppler vascularization indices (VI, FI, VFI) were assessed using VOCAL in 223 women. In 82 women, serum and cervical-fluid relaxin-1, relaxin-2, and elastin were measured by enzyme-linked immunosorbent assay (ELISA). ***Results***: CL, HR, ECI, IOS, and EOS differed significantly among all three phenotypes (p<0.001), which were also associated with gestational age and Bishop score. Compared with the immature phenotype, the hazard of spontaneous labor within 14 days was 5.25-fold higher for the ripening phenotype (HR 5.25; 95% CI 2.56–10.75) and 14.92-fold higher for the mature phenotype (HR 14.92; 95% CI 7.44–29.90; p<0.001). Cervical stiffness decreased before measurable cervical shortening and was lower in women with preterm birth (48.0% vs 60.7%; p<0.001). VI, FI, and VFI progressively increased across maturity phenotypes (p<0.001). Serum relaxin-1 increased with maturation (p=0.004), whereas relaxin-2 declined (serum p=0.003; cervical fluid p=0.027). Cervical-fluid relaxin-2 concentrations were up to approximately 1,000-fold higher than paired serum concentrations, supporting local cervical production. ***Conclusion***: Validated E-Cervix phenotypes identify a coordinated biomechanical–vascular–molecular sequence of cervical maturation and predict approaching labor beyond cervical length alone. Combining objective ultrasound phenotyping with cervical-fluid biomarkers may provide a clinically applicable framework for quantitative assessment of cervical maturity.
Disclosure of Interest. *None declared.*

PROGRAMMABLE BIRTH IN GESTATIONAL MELLITUS: MINIMIZING RISKS- IMPROVING MATERNAL AND PERINATAL OUTCOMES

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Despite the close attention of researchers, obstetricians, gynecologists and endocrinologists to the problem of GESTATIONAL DIABETES, there is still no consensus on the optimal tactics of pregnancy and delivery with this pathology. In-depth diagnostics of the condition of the mother and fetus in patients with GDM made it possible to perform a delivery in terms close to physiological. Programmed delivery minimized the risks of maternal and neonatal complications in patients with GESTATIONAL DIABETES MELLITUS. A retrospective analysis of delivery methods was carried out in 9769 patients with gestational diabetes mellitus at full-term pregnancy. The mandatory condition was the biological readiness of the body of a pregnant woman for delivery («MATURITI» OF THE CERVIX). Moreover, it was obligatory to monitor the fetal condition, contractile activity of the uterus in patients with a high degree of maternal and perinatal risk. Programmed delivery was performed according to the standard method with labor induction by amniotomy in the morning. The delivery was performed with a full-term pregnancy lasted more than 39 weeks, which was consistent with a more successful induction of labor in patients with gestational diabetes mellitus if the delivery was performed at a time close to physiological. It was found that expectant management is optimal in pregnant women with gestational diabetes who were on diet therapy (up to 41 weeks) and with those who received insulin up to 40 weeks. The developed and implemented method of programmed delivery has become an alternative to caesarean section, it has allowed to reduce the frequency of abdominal labor while improving outcomes in mothers and newborns. The frequency of caesarean sections during programmed delivery was significantly lower than in the population (10.0–10.7%). There was a significant decrease in the incidence among newborns in the group with programmed delivery in comparison with the group of planned caesarean section: hypoglycemia by 2 times, respiratory distress syndrome by 2.5 times ($p < 0.05$). The results of the study confirm the fact that programmed delivery is an alternative to planned cesarean section and thus a reserve for reducing the frequency of cesarean sections.

HUMAN ERROR, SYSTEM VULNERABILITIES, AND RESILIENCE IN MATERNAL CRITICAL CARE: MULTIDISCIPLINARY ANALYSIS OF DIAGNOSTIC COMPLEXITY, COGNITIVE BIAS, MEDICATION SAFETY, COMMUNICATION AND SYSTEM FAILURES

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Problem statement: Maternal critical care is a uniquely high-risk domain where pregnancy physiology obscures early warning signs, mimics severe pathology and accelerates deterioration. Dual physiology-simultaneous maternal and fetal considerations-creates diagnostic ambiguity, increases cognitive load and amplifies the consequences of human error. International surveillance systems (WHO, CDC, MBRRACE-UK) consistently show that most maternal ICU deaths are preventable and linked to delayed recognition, cognitive bias, medication errors, communication failures and systemic vulnerabilities. A structured understanding of these mechanisms is essential for designing resilient maternal critical care systems. ***Methods***: This expert review integrades evidence from

maternal mortality audits, critical care guidelines, human-factors engineering and resilience science. Key domains analyzed include diagnostic complexity, cignitive bias, medication safety in dual physiology, communication failures, crisis-driven amplification of risk and system failure mechanisms. The Swiss Cheese Model was used to conceptualize how latent system weaknesses and active clinical errors align to produce adverse outcoomes. Finding were synthesized to construct a resilience-based framework for maternal ICU safety. ***Results***: Pregnancy physiology masks early deterioration, contributing to delayed recognition in 60-70% of maternal ICU admissions. Cognitive biases-anchoring, confirmation bias, premature closure, diagnostic drift-flourish under emotional pressure and time-critical decision making. Medication errors are magnefied by altered pharmacokinetics, narrow therapeutic windows, dual maternal-fetal impact. Communication failures account for more than half of preventable adverse events, driven by multidisciplinary fragmentation, lack of closed loop communication, documentation gaps and environmental noise. Crisis conditions (pandemics, staffing shortages, protocol instability) amplify vulnerabilities, increasing cognitive overload, burnout and system fragility. Alignment of latent failures (staffing gaps, outdated protocols, fragmented documentation) with active errors (misdiagnosis, incorrect dosing, delayed escalation) explains the majority of preventable maternal harm. ***Conclusion***: Human error in maternal critical care is a systemic signal rather than an individual failure. Resilient maternal ICU systems require standardized diagnostic tools, cognitive debiasing strategies, structured communication (SBAR, closed-loop), obstetric-specific medication protocols, high-fidelity simulation, crisis-ready staffing models and integraded maternal-fetal monitoring. Strengthening these systems transforms maternal critical care from a high-risk environment into a coordinated, predictable and safer domain for both mother and fetus.

MATERNAL SERUM URIC ACID TRAJECTORIES DURING PREGNANCY AND RISKS OF PRETERM BIRTH AND LOW BIRTH WEIGHT: A RETROSPECTIVE COHORT STUDY

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***Problem statement*:** Maternal serum uric acid (SUA) undergoes dynamic physiological changes throughout pregnancy and has been implicated in preterm birth (PTB) and low birth weight (LBW). However, most previous studies have relied on single-time-point SUA measurements, leaving the clinical significance of longitudinal SUA trajectories insufficiently understood. We aimed to investigate the associations of gestational SUA levels and longitudinal SUA trajectories with the risks of PTB and LBW. ***Methods*:** This retrospective cohort study included 3,003 singleton pregnancies delivered at Haidian District Maternal and Child Health Care Hospital, Beijing, China, between 2018 and 2021. SUA was measured both in early (≤14 weeks) and late (≥28 weeks) pregnancy. Based on cutoff values identified from the RCS curve inflection points in the current study which is supported by previous literature, SUA was defined as elevated when SUA level >240 μmol/L in early pregnancy and >300 μmol/L in late pregnancy respectively. Subsequently, participants were classified into four trajectory groups: SUA persistent normal through the whole gestation period (N+N), SUA elevation only occurred in late pregnancy (N+A), SUA late-phase recovery (A+N), and SUA persistent elevation during pregnancy (A+A). Multivariable logistic regression, restricted cubic spline (RCS), cumulative distribution, and subgroup analyses were performed. ***Results*:** Elevated SUA in both early and late pregnancy was independently associated with increased risks of PTB and LBW, with stronger associations observed for late-pregnancy SUA. Compared with the N+N group, women with late-pregnancy elevation (N+A) had a higher risk of LBW (adjusted OR [aOR] 3.59, 95% CI 1.67–7.15), whereas persistent elevation (A+A) was associated with increased risks of PTB (aOR 2.56, 95% CI 1.51–4.22) and LBW (aOR 2.52, 95% CI 1.22–4.90). No significant associations were observed for A+N. RCS analyses demonstrated dose–response relationships, and the associations remained consistent across maternal age, pre-pregnancy body mass index, and parity subgroups. ***Conclusion*:** Longitudinal assessment of maternal SUA provides greater prognostic value than single-time-point measurements for identifying pregnancies at increased risk of PTB and LBW. New-onset or persistent SUA elevation in late pregnancy showed the strongest associations with adverse outcomes, supporting repeated SUA monitoring as a practical component of antenatal risk assessment.

PREDICTING POSTPARTUM DEPRESSION: THE ROLE OF SOCIAL MEDIA ADDICTION AND SPOUSAL SUPPORT DURING PREGNANCY

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Aim: This study examined the associations of social media addiction and perceived spousal support during pregnancy with postpartum depression risk. ***Methods***: This descriptive cross-sectional study included 443 pregnant women attending the obstetrics and gynecology outpatient clinics of two hospitals in Turkey from September 2025 to July 2026. Data were collected using a Sociodemographic Information Form, the Perceived Spousal Support During Pregnancy Scale (PSSPS), the Postpartum Depression Predictors Inventory-Revised (PDPI-R), and the Social Media Addiction Scale for Adults (SMAS-A), and analyzed using descriptive statistics, Pearson correlation, and multiple linear regression. ***Results***: The mean scores were 64.39 ± 12.31 for the PSSPS, 27.61 ± 9.70 for the SMAS-A, and 4.78 ± 3.95 for the PDPI-R. A moderate, statistically significant inverse association was identified between perceived spousal support and postpartum depression scores, indicating that higher perceived spousal support was associated with lower postpartum depression risk. Conversely, a weak but statistically significant positive association was observed between social media addiction and postpartum depression scores. Statistically significant differences in PSSPS mean scores were observed according to educational level, duration of marriage, previous pregnancy history, history of miscarriage/abortion, number of children, and history of a high-risk diagnosis in a previous pregnancy ($p < 0.05$). SMAS-A mean scores differed significantly according to trimester, educational level, occupation, smoking status, alcohol consumption, and history of a high-risk diagnosis in a previous pregnancy ($p < 0.05$). Significant differences in PDPI-R mean scores were also identified according to educational level, previous pregnancy history, number of miscarriages/abortions, number of stillbirths, smoking status, alcohol consumption, and the presence of a high-risk diagnosis in the current pregnancy ($p < 0.05$). ***Conclusion***: Perceived spousal support was the strongest independent protective factor associated with postpartum depression. Gestational week, high-risk pregnancy, smoking, and a history of stillbirth were also significant predictors and should be routinely assessed during perinatal care.

ORAL PRESENTATION SESSION 03
ART/IVF/INFERTILITY: FERTILITY PRESERVATION | REPRODUCTIVE GENETICS

FERTILITY PRESERVATION

RELATIONSHIP BETWEEN WOMEN`S CLIMATE CHANGE ANXIETY AND SOCIAL AND PSYCHOLOGICAL DETERMINANTS

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Problem statement: Climate change is recognized as one of the greatest global public health challenges, affecting physical, social, and psychological well-being through environmental and social determinants. Women are particularly vulnerable because of greater exposure to extreme heat, endocrine-disrupting chemicals, and gender-related inequalities, all of which may increase

reproductive health risks and negatively affect mental well-being. Although climate change anxiety has emerged as an important psychological consequence of this global crisis, its social and psychological determinants among women remain poorly understood. Identifying these determinants is essential for developing gender-responsive public health policies. Therefore, this study aimed to examine the relationship between women`s climate change anxiety and its social and psychological determinants. ***Methods***: This descriptive, cross-sectional study was conducted online between November 2023 and November 2024 with 2,549 women aged 18 years and older residing in Türkiye. Data were collected using a researcher-developed Personal Information Form based on the literature and adapted from Risk Perception Theory to assess demographic characteristics and social and psychological determinants. Climate change anxiety was measured using the Climate Change Women`s Anxiety Scale (CCWAS). Descriptive statistics and multiple linear regression analyses were performed. ***Results***: The mean age of the participants was 33.77±9.46 years. The mean total CCWAS score was 65.48±13.52, indicating a relatively high level of climate change anxiety. Mean subscale scores were 31.93±6.76 for Physiological Health, 20.15±4.74 for Behavioral Responses, and 13.40±3.74 for Gender. Multiple regression analysis showed that cognitive factors, experiential processes, sociocultural influences, and individuals` values, beliefs, and norms significantly predicted women`s climate change anxiety ($F=296.696$, $p<0.001$, $R^2=0.318$). Values and belief systems were the strongest predictor of climate change anxiety. ***Conclusion***: Women demonstrated high levels of climate change anxiety, and psychosocial determinants significantly influenced anxiety levels. These findings emphasize the need to integrate psychosocial and gender-sensitive approaches into climate change adaptation policies and public health interventions. Considering women`s values, beliefs, and social context may strengthen psychological resilience, improve adaptation capacity, and contribute to better reproductive and overall health outcomes in the context of climate change.

Keywords: *Climate change; women; climate change anxiety; social determinants; psychological determinants.*
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ANTI-MÜLLERIAN HORMONE RECEPTOR: WHERE DOES IT TRULY RESIDE?

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Problem statement: Anti-Müllerian hormone (AMH) has shown promise as a gonadoprotective agent against chemotherapy-induced ovarian damage; however, the molecular mechanisms underlying its protective effects remain poorly understood. AMH exerts its biological effects through binding to its specific receptor, AMH receptor type II (AMHR2), which is increasingly considered a potential therapeutic target for gonadoprotection. However, the precise cellular localization of AMHR2 within the human ovary remains contentious. Indeed, conflicting immunohistochemistry (IHC) data on the main AMHR2-expressing compartment in the ovary point to either granulosa cells or stromal fibroblasts. We were therefore looking to characterize the cellular distribution of AMHR2 and assess the uniformity of its detection across complementary methods and antibodies. ***Methods***: IHC, immunofluorescence (IF) and western blot (WB) were performed using three anti-AMHR2 antibodies (one polyclonal, two monoclonal) and RT-PCR. Tissues analyzed included human ovarian cortex and medulla, primary ovarian stromal cells, granulosa cell lines (KGN derived from ovarian carcinoma, immortalized primary HGL5 cells), breast cancer cell line MCF7, liver cancer cell line HepG2, placenta, and a broad panel of murine tissues. ***Results***: Detection patterns varied hugely according to antibody, sample type and technique. Despite the transmembrane nature of the protein, none of the antibodies displayed a signal confined to the plasma membrane, and none yielded a consistent single band at the expected molecular weight (~63 kDa) by WB. KGN granulosa cells were positive for AMHR2 by IHC and WB with several antibodies, but showed no detectable AMHR2 transcripts by RT-PCR, suggesting a nonspecific antibody signal. In murine tissues, transcript expression in the gonads, heart, lung and posterior brain did not correspond to protein detection by IHC. ***Conclusion***: Currently available antibodies are not reliable for immunodetection of AMHR2, producing considerably different outcomes depending on antibody choice, sample type and detection technique. Although discrepancies in AMHR2 localization have been reported in the literature, these disparities cannot be considered evidence of true biological differences given the limited reliability of available antibodies. Without establishing the cellular localization of AMHR2, the molecular pathway underlying AMH-mediated gonadoprotection cannot be elucidated.

Disclosure of interest: *None declared.*

SUOP-PC TECHNIQUE: TRANSITIONING FROM FROZEN TO FREE — A STANDARDISED LAPAROSCOPIC SURGICAL APPROACH FOR ADVANCED ENDOMETRIOSIS

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***Background*:** Advanced endometriosis often presents a major surgical challenge due to dense adhesions, distorted pelvic anatomy, and obliteration of normal anatomical landmarks, resulting in the so-called “frozen pelvis.” These complex conditions increase the risk of surgical complications and incomplete disease clearance. A structured and stepwise surgical strategy may improve operative safety, consistency, and clinical outcomes. Systematic identification of pelvic anatomy and careful dissection through relatively avascular planes are key to safe laparoscopic management. ***Objective*:** To evaluate the feasibility and effectiveness of a structured stepwise laparoscopic approach using the SUOP-PC technique for surgical management of frozen pelvis associated with advanced endometriosis. ***Materials and methods*:** This study was conducted as a retrospective analysis with prospective follow-up at a tertiary care centre. Patients were divided into two groups: those managed with conventional laparoscopic techniques (n = 11) and those treated using a standardised stepwise surgical approach based on the mnemonic SUOP-PC (n = 11).

The SUOP-PC sequence consisted of:
S – Sigmoid adhesiolysis
U – Ureterolysis
O – Ovarian detachment from the ovarian fossa with suspension
P – Pararectal space dissection
P – Peritonectomy
C – Cystectomy

Operative time, intraoperative complications, need for conversion to laparotomy, postoperative recovery, restoration of pelvic anatomy, recurrence rates, and reproductive outcomes were analysed. ***Results*:** Patients treated with the standardised SUOP-PC approach demonstrated shorter operative times, with an average reduction of approximately 30 minutes compared with conventional surgery. The stepwise group also experienced fewer intraoperative complications and a lower need for conversion to laparotomy. Postoperative recovery was smoother, with faster return to routine activities and better restoration of pelvic anatomy. During follow-up, recurrence rates were lower in the SUOP-PC group. Among patients with infertility, reproductive outcomes appeared more favourable following the structured surgical approach. ***Conclusion*:** The SUOP-PC technique offers a systematic method for safely “unfreezing” the frozen pelvis in advanced endometriosis. By following a logical anatomical sequence, this approach enhances surgical safety, reduces operative time, facilitates restoration of pelvic anatomy, and may improve reproductive outcomes. A standardised stepwise strategy may also provide an effective framework for training and for improving consistency in complex laparoscopic endometriosis surgery.

BEYOND DUOSTIM: MULTIPLE OOCYTE RETRIEVALS WITHIN A SINGLE MENSTRUAL CYCLE TO MAXIMIZE MATURE OOCYTE YIELD IN POOR RESPONDERS

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Problem statement: Poor ovarian responders demonstrate asynchronous follicular development, with a small number of dominant follicles developing ahead of a potentially recruitable secondary cohort. Attempts to synchronize follicular growth may prolong stimulation without ensuring synchronous oocyte maturation. We evaluated another strategy of retrieving the leading follicular cohort followed by rapid re-initiation of stimulation, allowing subsequent follicular cohorts to mature independently within the same menstrual cycle. ***Methods***: This retrospective study included 53 poor ovarian responders treated between January and August 2026 (mean age 45.1 years; mean anti-Müllerian hormone 0.8 ng/mL) who underwent at least two consecutive stimulations and oocyte retrievals within one menstrual cycle. Patients undergoing only one stimulation were excluded. Following the first retrieval, ultrasound and serum luteinizing hormone (LH), estradiol and progesterone were assessed, and stimulation was restarted 48 hours later using LH-containing gonadotropins, predominantly menotropins or follitropin alfa/lutropin alfa. GnRH antagonists were used selectively according to hormonal monitoring and generally omitted when progesterone remained elevated. An hCG trigger was used for initial retrieval and combined trigger for subsequent luteal-phase retrievals. Mature oocytes were vitrified. ***Results***: All 53 patients completed at least two retrievals. Forty-two (79.2%) underwent two retrievals and 11 (20.8%) underwent three, resulting in 117 retrieval procedures within 53 menstrual cycles. The initial dominant cohort yielded approximately 1–3 metaphase II (MII) oocytes per patient. Following re-stimulation, the second, predominantly luteal-phase cohort yielded approximately 3–5 MII oocytes and represented the largest contribution to cumulative mature oocyte recovery. In patients completing a third stimulation, an additional 1–3 MII oocytes were obtained. No premature ovulation, ovarian hyperstimulation syndrome, clinically significant bleeding, infection or hospitalization occurred in the study cohort. ***Conclusion***: In poor responders with asynchronous follicular development, separating rather than forcing synchronization of follicular cohorts may maximize cumulative mature oocyte recovery. Retrieval of the dominant cohort followed by hormone-guided luteal-phase re-stimulation enabled exploitation of additional follicular recruitment, with the second cohort providing the greatest MII contribution. Selected patients successfully underwent a third retrieval within the same menstrual cycle. This individualized strategy may offer a time-efficient approach to oocyte accumulation in women with limited ovarian reserve.
Disclosure of interest: None declared.

REDUCED OVARIAN RESERVE DESPITE SPONTANEOUS MENSES IN WOMEN WITH TRANSFUSION-DEPENDENT B-THALASSEMIA: A MATCHED CASE-CONTROL STUDY

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Problem statement: Preserved menses may obscure early ovarian impairment in women with transfusion-dependent β-thalassemia (TDT). We evaluated ovarian reserve in a deliberately selected subgroup menstruating spontaneously without hormone replacement treatment (HRT), in comparison to body mass index (BMI) and age matched healthy controls, and explored relationships with iron-homeostasis markers. ***Methods***: This cross-sectional case-control study included 23 women with TDT and 63 healthy controls. Follicle-stimulating hormone (FSH), luteinizing hormone (LH), estradiol (E2), serum anti-Müllerian hormone (AMH), ferritin, and hepcidin were compared between groups. Mann–Whitney or Welch's t-tests were used according to data distribution, and Spearman correlations were assessed within the patient group. Analyzable sample sizes varied by marker because of missing or excluded measurements. ***Results***: Among analyzable observations, AMH was markedly lower in women with TDT than in controls (n = 20 vs n = 63; median 0.325 vs 2.47 ng/mL; $p < 0.0001$), whereas FSH, LH, and E2 did not differ significantly. Ferritin and hepcidin were higher in TDT (both $p < 0.0001$). Within the TDT group, AMH correlated inversely with hepcidin (n = 21; Spearman ρ = -0.524, 95% CI -0.785 to -0.106; p = 0.0147) and ferritin (n = 22; ρ = -0.447, 95% CI -0.737 to -0.018; p = 0.0368). The multivariable model (n = 19) was significant ($R^2 = 0.803$; adjusted $R^2 = 0.677$; p = 0.0035); hepcidin (b = -0.000140; 95% CI -0.000259 to -0.000021; p = 0.0251) and age (b = -0.0423 ng/mL/year; p = 0.0412) were independent negative correlates. ***Conclusion***: Even among spontaneously menstruating women with TDT not requiring HRT, ovarian reserve was diminished, while FSH, LH, and E2 did not distinguish the groups. Spontaneous menses may therefore mask reduced ovarian reserve. The independent inverse hepcidin-AMH association links disturbed iron homeostasis to subclinical reproductive risk, supporting earlier AMH assessment and fertility-preservation counselling.
Disclosure: *No conflict of interest.*

REPRODUCTIVE GENETICS

SINGLE-CELL TRANSCRIPTOMICS OF HUMAN OOCYTES REVEAL OVARIAN PATHOLOGY-SPECIFIC MOLECULAR SIGNATURES

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Problem statement: Polyendocrine metabolic ovarian syndrome (PMOS) and endometriosis are major causes of female infertility and may impair oocyte competence. However, their impact on human oocytes transcriptome remains poorly characterized at the single-cell level and according to oocyte maturation conditions (Ducreux et al., Human Reproduction Update, 2024). We investigated transcriptomic profiles in human oocytes collected after controlled ovarian stimulation from women with PMOS, ovarian endometriosis or controls across different vitrification or maturation settings. ***Methods***: Oocytes from PMOS, endometriosis and control women were analyzed. Oocytes from women aged ≥38 years, with diminished ovarian reserve, cancer, genetic diseases, or concomitant PMOS and endometriosis were excluded. These three groups were compared using two models: in vivo-matured MII oocytes, vitrified and warmed (**in vivo-MII**); and MII oocytes obtained following 24-hour in vitro maturation (**IVM-MII**). In each model, single-oocyte transcriptomes were generated using SMART-seq2 and Illumina NextSeq sequencing. Differential expression was analyzed using DESeq2 with Benjamini-Hochberg correction (false discovery rate <0.05), adjusting for patient effect. Gene Ontology and Gene Set Enrichment Analysis were performed. ***Results***: 44 oocytes (31 women) were analyzed (14 **in vivo-MII**; 29 **IVM-MII**). Among **in vivo-MII** model, endometriosis was associated with 40 differentially expressed genes (10 upregulated; 30 downregulated), involving carboxylic and organic acid transport, cellular responses to metal ions, and organic anion transport. PMOS showed 102 DEGs (80 upregulated; 22 downregulated), involving cytoplasmic translation, responses to toxic substances, and aerobic electron transport. Among **IVM-MII** model, no DEGs were identified between endometriosis and controls, whereas PMOS was associated with 12 DEGs (8 upregulated; 4 downregulated). Functional analyses highlighted dysregulations in aerobic electron transport, adenosine triphosphate synthesis, cytoplasmic translation, mitochondrial electron transport, and lipoprotein transport. ***Conclusion***: By combining single-oocyte transcriptomics with stringent patient phenotyping and selection, this study reveals distinct disease- and model-specific molecular signatures in PMOS and ovarian endometriosis. Alterations in mitochondrial metabolism, cellular transport, and protein translation identify potential molecular mechanisms that might contribute to

altered oocyte competence. Importantly, the distinct transcriptomic profiles observed across models highlight maturation or vitrification settings as key factors shaping disease-associated molecular signatures.

REEVALUATING SEGMENTAL ANEUPLOIDIES IN PGT-A: CLINICAL OUTCOMES AND BIOLOGICAL BEHAVIOR ACROSS RE-BIOPSIES

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Background: Segmental aneuploidies detected by PGT-A represent a challenging clinical and biological dilemma. Unlike whole-chromosome aneuploidies, segmental deletions and duplications may arise from mitotic errors and may therefore show mosaicism and variable representation. Importantly, some may be compatible with normal embryonic development. We evaluated the reproductive potential of embryos with segmental aneuploidies and the concordance of segmental findings following re-biopsy. ***Materials and methods***: Two complementary datasets were analyzed. The first included embryos diagnosed with high-grade segmental mosaicism using an NGS-based PGT-A platform. Embryos with an isolated segmental deletion or duplication were transferred to 9 couples following genetic counseling. Implantation, clinical pregnancy, ongoing pregnancy and early pregnancy loss were assessed. The second dataset included 13 embryos diagnosed with segmental aneuploidy using a high-throughput SNP-array PGT-A platform. A second trophectoderm biopsy was performed, and results were compared with the initial diagnosis. ***Results***: In the first dataset, 5/9 couples achieved a clinical pregnancy (55%). Four pregnancies were ongoing (44%), one miscarriage occurred (20%), and three healthy babies had been born at the time of analysis. These outcomes demonstrate that some embryos with isolated segmental aneuploidies can implant and progress to healthy live birth. In the re-biopsy dataset, the original segmental aneuploidy was confirmed in 8/13 embryos (61.5%), whereas 5/13 (38.5%) showed a euploid result on repeat testing. This partial concordance is consistent with a possible mitotic origin and mosaic distribution of segmental abnormalities within the trophectoderm. ***Conclusions***: Segmental aneuploidies appear biologically and clinically distinct from whole-chromosome aneuploidies. The occurrence of ongoing pregnancies and healthy births supports a more nuanced approach than automatic embryo exclusion. Discordant re-biopsy results further highlight the potential mosaic nature of these abnormalities and the limitations of single re-biopsy confirmation. Platform-specific interpretation, individualized genetic counseling and standardized clinical management strategies are essential to optimize embryo-transfer decisions.

PREIMPLANTATION GENETIC TESTING FOR MONOGENIC DISORDERS (PGT-M) OR STRUCTURAL REARRANGEMENTS (PGT-SR): RESULTS FROM A DANISH PGT-CENTRE

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Problem statement: Patients considering preimplantation genetic testing for known monogenic disorders (PGT-M) or structural rearrangements (PGT-SR) require information on expected outcomes, including the likelihood of obtaining blastocysts suitable for genetic testing, the chance of achieving an ongoing pregnancy and, ultimately, a live birth. This study evaluates embryo development, ongoing pregnancy and cumulative ongoing pregnancy among patients undergoing PGT-M and PGT-SR to provide centre-specific estimates of expected outcomes for patient counselling. ***Methods***: Retrospective quality-assessment study at the PGT-centre, Rigshospitalet, including 402 patients undergoing PGT-M or PGT-SR initiating treatment between February 2021 and February 2026. All treatment cycles included ICSI, blastocyst culture and trophectoderm (TE)-biopsy; PGT-SR protocol additionally included aneuploidy screening. Outcomes included blastocysts suitable for biopsy and transfer, ongoing clinical pregnancy rate (GA7-8) per transfer and per patient. Live birth outcomes are pending. ***Results***: Mean(SD) female age at treatment initiation was 31.5(3.7) and 33.0(4.1) years for PGT-M and PGT-SR, respectively (p=0.003). In total, 323 and 79 patients underwent 653 and 234 ICSI cycles, resulting in 5,717 and 2,091 inseminated oocytes, respectively. Of these, 2,141/5,717 (37.4%) and 633/2,091 (30.3%) developed into blastocysts suitable for TE-biopsy (p<0.001). After genetic analysis, 1,221/2,141 (57.0%) and 234/633 (37.0%) of blastocysts were suitable for transfer (p<0.001). The proportion of cycles with at least one blastocyst suitable for transfer was 477/653 (73.0%) and 123/234 (52.6%), respectively (p<0.001). Ongoing pregnancy rate per transfer was 272/698 (39.0%) and 57/148 (38.5%) for PGT-M and PGT-SR (p=0.918). Among patients reaching transfer, cumulative ongoing pregnancy rate was 239/298 (80.2%) and 49/67 (73.1%), respectively (p=0.200). The cumulative ongoing pregnancy rate per patient was 239/323 (74.0%) and 49/79 (62.0%) for PGT-M and PGT-SR, respectively (p=0.034). However, a proportion of suitable blastocysts remain unused. ***Conclusion***: Ongoing and cumulative ongoing pregnancy rates among patients with transfer were similar between PGT-M and PGT-SR. PGT-M was associated with a higher proportion of blastocysts suitable for transfer and more cycles yielding at least one blastocyst suitable for transfer, translating into a higher cumulative ongoing pregnancy rate per patient. However, 44.6% and 38.4% of blastocysts suitable for transfer remained unused at analysis, which we acknowledge as a study limitation.

ORAL PRESENTATION SESSION 04

GYNECOLOGY: CASE REPORT/STUDY | TECHNOLOGICAL INNOVATIONS

CASE REPORT/STUDY

FROM TERMINAL THOUGHTS TO BENIGN TRUTHS: UNMASKING AN ADENOMYOTIC CYST IN A POSTMENOPAUSAL WOMAN - A CASE REPORT

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Background: Adenomyosis in postmenopausal women is a rare condition, with an incidence as low as 0.49 percent among those undergoing hysterectomy. The largest previously documented adenomyotic cyst in a postmenopausal woman measured 9 centimeters. This case report challenges the prevailing understanding of adenomyosis as a purely estrogen-dependent disease by presenting a remarkably large adenomyotic cyst in a postmenopausal patient. ***Case Presentation***: A 62-year-old multiparous woman, ten years postmenopausal, presented with progressive abdominal enlargement over five years. Initial transvaginal ultrasound revealed a 15.84 x 17.83 centimeters pelvoabdominal mass, prompting advice for surgical intervention. The patient initially self-medicated with herbal remedies for two years, which temporarily reduced the abdominal enlargement. Symptom recurred after stopping the herbal supplement. Further imaging, including abdominal ultrasound and contrast-enhanced computed tomography scans, identified a 29-centimeter pelvoabdominal cystic mass. Tumor markers (alpfa-fetoprotein, cancer antigen-125, cancer antigen 19-9, human epididymis protein 4) were within normal limits. Preoperative risk stratification using the International Ovarian Tumor Analysis Assessment of Different Neoplasias in the adnexa model (IOTA ADNEX) indicated a low risk of malignancy. The patient underwent ureteral stenting, exploratory laparotomy, and total abdominal hysterectomy with bilateral salpingooophorectomy. Intraoperative findings revealed an enlarged uterus measuring 29 x 27 x 19 centimeters, containing approximately 2000 milliliters of dark green, turbid fluid. Histopathological examination confirmed a benign adenomyotic cyst, basal endometrium, and chronic cervicitis, with unremarkable ovaries and fallopian tubes. Postoperatively, the patient experienced complete resolution of abdominal distension and returned to normal activities within six weeks, remaining

asymptomatic at three months follow-up. This case represents the largest documented adenomyotic cyst (29 centimeter in diameter) in a postmenopausal woman. ***Discussion and Conclusion***: This case highlights the persistence and potential for significant growth of adenomyosis in postmenopausal women, challenging the traditional view of its estrogen dependence. The proposed pathophysiological mechanisms include intracrine estrogen production via aromatase, chronic inflammation, and hormone-independent tissue injury and repair cycles. Comprehensive evaluation is crucial to differentiate such large masses from malignancy. This report stresses the importance of considering adenomyosis in the differential diagnosis of pelvoabdominal masses in postmenopausal women, even in the absence of typical estrogenic stimulation.

VAGINOSCOPY-ASSISTED VAGINAL MYOMECTOMY FOR A PROLAPSED SUBMUCOUS MYOMA IN A 13-YEAR-OLD ADOLESCENT: A CASE REPORT

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Problem statement: Abnormal uterine bleeding (AUB) in adolescents is most commonly attributed to anovulatory cycles secondary to immaturity of the hypothalamic-pituitary-ovarian axis. Structural causes are uncommon, and uterine leiomyomas are exceptionally rare in this age group, with a reported prevalence of only 0.4% among females aged 15–19 years. We present a rare case of a prolapsed submucous leiomyoma causing prolonged menstrual bleeding in a 13-year-old adolescent. ***Methods***: A 13-year-old nulliparous adolescent presented with one month of continuous menstrual bleeding. Transrectal ultrasonography demonstrated a 2.4 × 1.7 × 1.8 cm heterogeneous mass protruding through the endocervical canal, suggestive of a prolapsed endometrial polyp or submucous leiomyoma. Physical examination confirmed a prolapsing vaginal mass. The patient underwent vaginoscopy, vaginal myomectomy, and diagnostic hysteroscopy. ***Results***: A pedunculated intracavitary mass was successfully removed through a vaginal approach. Histopathologic examination confirmed a benign submucous leiomyoma measuring 3.0 × 2.5 × 3.0 cm. The postoperative course was uneventful, and the patient remained asymptomatic without recurrence at six months of follow-up. ***Conclusion***: Leiomyomas occurring shortly after menarche are exceptionally uncommon and may be overlooked because most adolescent AUB is attributed to non-structural causes. This case highlights the importance of considering structural pathology in adolescents with persistent bleeding and demonstrates the feasibility of fertility-preserving minimally invasive management using vaginoscopy-assisted vaginal myomectomy in a non-sexually active patient.Although rare, submucous leiomyoma should be included in the differential diagnosis of persistent adolescent AUB. Early recognition, appropriate imaging, and fertility-preserving surgical management can achieve excellent clinical outcomes.
Disclosure of interest: *None*

EXTRAMEDULLARY RELAPSE OF ACUTE LYMPHOBLASTIC LEUKEMIA INVOLVING THE UTERUS, OVARIES, AND CERVIX PRESENTING AS ABNORMAL UTERINE BLEEDING: FIRST DOCUMENTED CASE IN THE PHILIPPINES

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Problem statement: Extramedullary relapse of Acute lymphoblastic leukemia (ALL) commonly occurs in the central nervous system, testes, skin, or pleura. For it to involve any part of the female reproductive tract is a rare event, where the incidence remains unknown. This is the first reported case of extramedullary relapse of ALL involving the uterus, ovaries, and cervix in the Philippines. ***Methods***: A 37-year-old, Gravida 2 Para 2, diagnosed with ALL, for which the Berlin Frankfurt-Müenster regimen was received and rendered to be in remission. She was lost to follow-up for 6 months during the maintenance phase owed to the pandemic. Two months before the presentation, she developed profuse vaginal bleeding. Transvaginal ultrasound demonstrated an enlarged uterus with multiple well-circumscribed solid masses exhibiting fan-shaped shadowing. Subtotal hysterectomy with bilateral salpingooophorectomy. Histopathologic examination revealed blastic round cells in the myometrium and ovaries. She was subsequently referred to a gynecologic oncologist. Cervical punch biopsy had the same histopathologic findings. Immunohistochemistry confirmed extramedullary relapse, ALL in the uterus, ovaries, and cervix. **Results**: The leukemic cells could have migrated to the corpus via the hematogenous route, causing parenchymal destruction of the endometrium, which subsequently is the cause of AUB. Histopathology confirmed the presence of blastic round cells, which immunohistochemistry confirmed to have the specific marker, leukocyte common antigen (LCA), CD45, and terminal deoxynucleotidyl transferase (TdT). The goal of therapy is to attain remission, or at least cytoreduction, until the patient can undergo allogenic hematopoietic cell transplantation. This condition has a poor prognosis. The patient declined further management and opted for palliative care. ***Conclusion***: Although extremely rare, extramedullary relapse of ALL should be considered in patients with a history of leukemia presenting with abnormal uterine bleeding or pelvic masses. Histopathologic examination with immunohistochemistry is essential for accurate diagnosis and timely management. Despite available treatment options, the prognosis remains poor.
Disclosure of interest: *The authors declare no conflicts of interest.*

PARANEOPLASTIC CEREBELLAR DEGENERATION ASSOCIATED WITH MATURE CYSTIC TERATOMA: A RARE CASE REPORT

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Problem statement: Paraneoplastic cerebellar degeneration (PCD) is a rare immune-mediated neurological syndrome affecting fewer than 1% of patients with malignancies. It is most commonly associated with gynecologic and breast malignancies, while its association with benign ovarian mature cystic teratomas is exceedingly uncommon, posing significant diagnostic challenges. ***Methods*****:** A 39-year-old nulligravid woman presented with progressive slurred speech, gait instability, and impaired balance. She was initially managed as a presumed cerebrovascular event; however, neurological symptoms continued to worsen. Cranial and spinal magnetic resonance imaging incidentally revealed bilateral ovarian masses. Upon referral, transvaginal ultrasonography demonstrated bilateral complex ovarian tumors suspicious for mature cystic teratomas. Neurologic evaluation raised the possibility of paraneoplastic cerebellar degeneration. Cerebrospinal fluid analysis and anti-Yo antibody testing were considered but were unavailable locally. Given the strong clinical suspicion of a paraneoplastic process, the patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy after informed consent. ***Results***: Histopathology confirmed bilateral mature cystic teratomas. Following surgical management, the patient`s neurological symptoms stabilized, supporting the diagnosis of paraneoplastic cerebellar degeneration secondary to ovarian teratoma ***Conclusions***: Paraneoplastic cerebellar degeneration should be considered in patients presenting with unexplained progressive cerebellar dysfunction, even when the associated ovarian tumor appears benign. Early recognition of this rare paraneoplastic syndrome and prompt multidisciplinary management may prevent irreversible neurological deterioration. This case highlights the diagnostic challenges encountered in resource-limited settings where confirmatory paraneoplastic antibody testing is unavailable and emphasizes the importance of clinical judgment in guiding timely surgical intervention.

EFFECTS OF STANDARDIZED PATIENT SIMULATION ON MIDWIFERY STUDENTS` COMMUNICATION SKILLS, ATTITUDES TOWARD VIOLENCE AGAINST WOMEN, AND RECOGNITION OF SIGNS OF VIOLENCE: AN EMBEDDED MIXED-METHODS STUDY

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Problem statement: Violence against women remains a major global public health concern, yet many healthcare graduates feel inadequately prepared to identify and manage women experiencing

violence. Simulation-based education may provide a safe and effective strategy for developing communication, professional awareness, and trauma-informed care competencies. This study evaluated the effectiveness of a simulation-based educational intervention for undergraduate midwifery students. ***Methods***: An embedded mixed-methods study employing a one-group quasi-experimental pretest–posttest design was conducted with 33 fourth-year midwifery students. Participants completed validated measures assessing communication skills, attitudes toward violence against women, and recognition of signs of violence before and after a standardized patient simulation. Qualitative data were collected through a semi-structured focus group interview and analyzed using reflexive thematic analysis. ***Results***: Communication skills improved modestly but did not reach statistical significance (p>.05). Significant improvements were observed in attitudes toward violence against women (p<.001; Cohen`s d=0.99) and recognition of signs of violence (p=.003; Cohen`s d=0.56). Qualitative findings demonstrated increased empathy, trauma-informed awareness, professional responsibility, reflective learning, and greater confidence when communicating with women experiencing violence. Participants also highlighted the importance of structured debriefing and repeated simulation experiences to strengthen clinical preparedness. ***Conclusion***: Simulation-based education effectively enhanced undergraduate midwifery students` preparedness to care for women experiencing violence by improving attitudes, recognition of violence, and essential trauma-informed competencies. Integrating standardized patient simulation into undergraduate midwifery curricula may strengthen future healthcare professionals` ability to provide compassionate, woman-centered care.

Keywords: *Attitude of health personnel, Communication skills, Midwifery students, Standardized patient, Violence against women.*

A CASE OF ANDROGEN INSENSITIVITY SYNDROME WITH MALIGNANT GERM CELL TUMOR IN A 67-YEAR-OLD WOMAN

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Problem statement: Androgen Insensitivity Syndrome (AIS) is a rare X-linked recessive disorder characterized by female external genitalia in individuals with a 46,XY karyotype. It has an estimated prevalence of 1 in 20,000 to 1 in 60,000 live births. Only seven cases have been reported locally, and diagnosis beyond the fifth decade of life is exceptionally rare. We present the first case in our institution of AIS diagnosed in an elderly patient with a malignant gonadal germ cell tumor. ***Methods***: We describe the case of a 67-year-old nulligravid who presented with an abdominal mass, primary amenorrhea, primary infertility, a blind vaginal pouch, absent cervix and uterus, and a right gonadal mass. She was initially diagnosed with Mayer-Rokitansky-Küster-Hauser syndrome and underwent staging laparotomy. Histopathologic examination with immunohistochemistry, followed by cytogenetic analysis, was performed to establish the definitive diagnosis. ***Results***: Histopathologic examination revealed a malignant gonadal germ cell tumor consistent with dysgerminoma/seminoma, which was confirmed by immunohistochemistry. Subsequent karyotyping demonstrated a 46,XY genotype, establishing the diagnosis of Androgen Insensitivity Syndrome. The patient completed adjuvant chemotherapy and continues multidisciplinary follow-up under Gynecologic Oncology, Urology, Medical Oncology, and Psychiatry. ***Conclusion***: This case highlights the rare occurrence of a malignant gonadal germ cell tumor in an elderly patient with previously undiagnosed Androgen Insensitivity Syndrome. Comprehensive preoperative evaluation, including consideration of disorders of sex development in patients with primary amenorrhea and absent Müllerian structures, is essential for accurate diagnosis. Early recognition, timely gonadectomy, and multidisciplinary management are crucial to reducing the risk of malignancy and optimizing long-term outcomes.

TECHNOLOGICAL INNOVATIONS

ULTRASOUND AS A DIAGNOSTIC TOOL IN FEMALE GENITAL MUTILATON

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Problem statement: Worldwide, over 230 million girls and women have undergone Female Genital Mutilation (FGM). FGM is a harmful practice that violates the fundamental rights of girls and women. FGM is classified into four major types and can be difficult to recognize if one is not familiar with it, especially in type 4. Sometimes there are no signs of scar tissue externally. However, in type 4 the clitoris might be damaged internally and can then be treated with clitoral reconstruction. Ultrasound allows quick and non-invasive imaging of the damage and can therefore lead to a diagnosis. This protocol serves as a framework for the objective criteria in the ultrasonographic evaluation of FGM. ***Methods***: Clitoral ultrasonography will be performed in women with and without FGM between 18 and 45 years old. Objective measurements will be conducted to determine the existence of differences. The examination involves placing a 7.5 MHz ultrasound probe on the pubic symphysis and a few centimeters below it, in the sagittal plane. Four landmarks are being used: the pubic bone, the skin, the clitoral tip, and the raphe. Five criteria will be evaluated to determine FGM, including: adhesions of the clitoris, ascension of the clitoris, fissure in the clitoral gland, fibrosis of the tunica albuginea, and fibrosis of the skin. ***Results***: At this moment a case-control study using this protocol comparing women with and without FGM is being conducted to demonstrate the effectiveness of ultrasound diagnosis of FGM. Preliminary results will soon be available. ***Conclusion***: This protocol provides a framework for the application of objective criteria in the ultrasound assessment of FGM. The results will show if there are differences in ultrasound imaging of the clitoris between women with and without FGM. It is expected that if a woman has (some of) these criteria, it is a sign that she has been cut. Therefore, it would be possible to use as a non-invasive diagnostic tool in FGM and give an implication for reconstruction.

THE SURGICAL ALGORITHM OF DR. SACHIN'S CRITERIA - STANDARDIZING ADNEXAL TORSION MANAGEMENT

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Background: Adnexal torsion is the fifth most common gynecological emergency, accounting for approximately 2–15% of cases in women of reproductive age. Delayed diagnosis may lead to ovarian necrosis and complications such as peritonitis or thrombophlebitis. Despite advancements in minimally invasive surgery, intraoperative decision-making in adnexal torsion often remains subjective, particularly regarding cyst management, ovarian preservation, and prevention of recurrence. To address this variability, we developed Dr. Sachin's Criteria, a structured surgical decision-making framework designed to guide laparoscopic management and standardize treatment strategies in adnexal torsion. ***Materials and methods***: A prospective observational study was conducted involving 44 patients diagnosed with adnexal torsion. Clinical presentation, imaging findings, and intraoperative characteristics were systematically evaluated. Parameters analyzed included age distribution, laterality of torsion, imaging findings on ultrasonography or MRI, cyst size, number of torsion turns, recurrence rates, and pregnancy outcomes following ligament plication.

Surgical management was guided by Dr. Sachin's Criteria, which provide a stepwise operative framework:

1.Ovarian cyst ≥5 cm with torsion → laparoscopic detorsion with cystectomy.

2.Utero-ovarian ligament length ≥5 cm → ligament plication to reduce ovarian mobility and prevent recurrence.

3.Recurrent torsion or premenarcheal patients → "hotdog-in-bun" utero-ovarian ligament plication technique.

4.PCOS-associated torsion → detorsion with ligament plication, ovarian drilling, and postoperative ovarian suppression for 3–6 months.

Results*:** Application of Dr. Sachin's Criteria provided a clear and reproducible intraoperative decision pathway, allowing surgeons to approach adnexal torsion with greater consistency. The protocol facilitated systematic ovarian preservation, appropriate cyst management, and targeted preventive interventions. Use of the criteria reduced subjectivity in surgical judgment and enabled uniform decision-making across diverse clinical scenarios, including premenarcheal torsion, recurrent torsion, and PCOS-related torsion. Preventive ligament plication in selected patients appeared to reduce the likelihood of recurrent torsion, while maintaining favorable reproductive outcomes. ***Conclusion: Dr. Sachin's Criteria offer a simple yet structured framework for laparoscopic management of adnexal torsion, transforming a traditionally subjective surgical situation into a more objective and reproducible decision-making process. Standardizing surgical decisions in adnexal torsion may represent an important step toward safer, more consistent gynecological emergency care.

Keywords: # Dr sachins criteria # Hotdog in Bun Technique. # standardized surgical protocol.

ORAL PRESENTATION SESSION 05
FETOMATERNAL MEDICINE: LABOR AND DELIVERY | MULTIFETAL PREGNANCY

LABOR AND DELIVERY

THE EFFECT OF POSTPARTUM LAUGHTER THERAPY ON MARITAL ADJUSTMENT, LIFE SATISFACTION, AND MATERNAL ATTACHMENT IN MOTHERS: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Laughter therapy stands out as an effective intervention that can help mothers integrate their maternal roles and improve their postpartum well-being through its stress-reducing, mood-regulating, and interpersonal communication-supporting effects. This study was conducted as a randomized controlled and prospective trial to evaluate the effect of online laughter therapy provided to mothers in the postpartum period on marital adjustment, life satisfaction, and maternal attachment levels. ***Methods***: This study was carried out with 90 postpartum mothers (45 in the laughter therapy group and 45 in the control group). Mothers in the intervention group participated in online laughter therapy sessions twice a week for four weeks, while no intervention was applied to the control group. Measurements were performed simultaneously in both groups at baseline (Day 1), after the laughter therapy intervention (Day 45), and at follow-up (Day 75). Data were collected using the Personal Information Form, the Revised Dyadic Adjustment Scale (RDAS), the Satisfaction with Life Scale (SWLS), and the Maternal Attachment Inventory (MAI). ***Results***: It was determined that RDAS and SWLS scores of mothers who received online laughter therapy were significantly higher than those of the control group on Days 45 and 75 ($p < 0.05$). Although MAI scores were higher in the control group on Day 45, a significant increase over time was observed in the intervention group ($p < 0.001$). Repeated-measures analyses showed that time significantly increased both RDAS and SWLS scores in the laughter therapy group ($p < 0.001$) and produced an early improvement in maternal attachment levels. ***Conclusion***: This study demonstrated that online laughter therapy is effective in increasing life satisfaction and marital adjustment among mothers in the postpartum period; however, it does not have a significant effect on maternal attachment levels. As an accessible, environmentally friendly, and sustainable intervention model, laughter therapy may be an effective approach to strengthening mothers' psychosocial adjustment in postpartum care and can be considered an innovative intervention.

AUDIT OF INDUCTION OF LABOUR PRACTICE, GUIDELINE ADHERENCE AND MATERNAL AND NEONATAL OUTCOMES AT AL WAKRA HOSPITAL

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Problem statement: Induction of labour (IOL) is an increasingly common obstetric intervention. Appropriate indications, selection of induction methods according to cervical status, and adherence to clinical guidelines are important for optimising outcomes. This audit evaluated IOL practice, guideline adherence, mode of delivery, and maternal and neonatal outcomes, including trial of labour after caesarean (TOLAC). ***Methods***: A retrospective clinical audit was conducted at Al Wakra Hospital, Hamad Medical Corporation, Qatar. All women undergoing IOL between January and February 2026 were included. Data on indication, gestational age, Bishop score, induction method, dinoprostone regimen, mode of delivery, maternal complications and neonatal outcomes were collected and assessed against the local IOL guideline. Women with previous caesarean section were assessed for elective repeat caesarean section (ERCS) versus IOL with TOLAC. ***Results***: Of 994 deliveries, 243 underwent IOL (24.4%). Vaginal delivery occurred in 193 (79.4%) and caesarean delivery in 50 (20.6%). Among 110 women with one previous caesarean section, 99 (90.0%) underwent ERCS and 11 (10.0%) underwent IOL with TOLAC; 5/11 (45.5%) achieved VBAC and 6/11 (54.5%) required caesarean delivery. The commonest indications were gestational diabetes mellitus (37.4%) and prolonged pregnancy (12.8%). Medical, mechanical, and surgical methods accounted for 81.5%, 11.5%, and 7.0%, respectively. Among 227 women with Bishop score <7, medical methods were used in 198 (87.2%), mechanical in 27 (11.9%) and surgical in 2 (0.9%). Propess alone was used in 60.6% of medical inductions. One cycle was used at 78.8% and two at 21.2%, with a median resting duration of 24 hours (IQR 23.3–27.8). Median IOL-to-delivery interval was 8 hours (IQR 4–13.5). Postpartum haemorrhage occurred at 1.6% and NICU admission at 7.0%. ***Conclusion***: IOL accounted for approximately one-quarter of deliveries, with a high vaginal delivery rate and low rates of postpartum haemorrhage and NICU admission. Most inductions were medical and used in women with an unfavorable cervix, although variation from recommended pathways was identified. The low proportion undergoing TOLAC and 45.5% VBAC rate highlight an opportunity to review counselling and decision-making. Standardised IOL and TOLAC pathways, followed by re-audit, may improve guideline adherence, consistency of care, and maternal and neonatal outcomes.

THE EFFECT OF ANTENATAL ANXİETY ON MODE OF DELİVERY PREFERENCE İN PRİMİGRAVİD WOMEN

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Aim: This study was conducted to investigate the effect of antenatal anxiety on mode of delivery preference in primigravid women. ***Methods***: The descriptive and exploratory study was conducted between April and August 2025. The study sample consisted of 275 nulliparous pregnant women. Data were collected using a personal information form, the Stirling Antenatal Anxiety Scale (SAAS) and the Pregnant Women`s Preferences for Mode of Delivery Questionnaire (PPMDQ). ***Results***: The average age of participants was 25.54±4.16. The total SAAS score for pregnant women is 9.7±6.77. The total PPMDQ score for pregnant women is 60.4±7.13. The mean score for the PPMDQ belief factor was 33.39±4.82, the mean score for the self-efficacy factor was 16.32±3.21, and the mean score for the preferences factor was 10.77±2.35. A statistically significant negative correlation was found between receiving spousal support during pregnancy and the total SAAS score, and a statistically significant positive correlation was found between receiving spousal support during pregnancy and the total PPMDQ score ($p<0.05$). ***Conclusion***: Antenatal anxiety was found to be an important factor affecting mode of delivery preference in primigravid women, with increasing anxiety associated with a decreased preference for vaginal delivery. In addition, the husband`s educational level and the woman`s employment status were identified as significant determinants of delivery mode preference. These findings highlight the importance of reducing antenatal anxiety through psychosocial support, involving partners in antenatal education, and providing individualized counseling to promote informed decision-making and support vaginal birth when medically appropriate.

BEYOND HYSTERECTOMY: FERTILITY-PRESERVING MANAGEMENT OF PLACENTA ACCRETA SPECTRUM WITH HIGH-INTENSITY FOCUSED ULTRASOUND (HIFU)

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Problem statement: Placenta accreta syndrome (PAS) involves abnormal placental adherence to the uterine wall with CS hysterectomy as the definitive treatment for PAS. However, in carefully selected patients who desire future fertility, conservative management may be considered including expectant management with the placenta left in situ, adjuvant treatment with methotrexate, and uterine artery embolization. The use of HIFU has been recognized as an intervention for various benign masses such as leiomyomas and adenomyosis but its use for placenta accreta management is relatively novel in the field of obstetrics. ***Methods***: Case index underwent High-intensity Focused Ultrasound (HIFU) on day 9 post partum for fertility preserving management of placenta accreta. Pre-HIFU simulation, bowel preparation, and diet progression to NPO was done prior to the procedure. HIFU was done under light IV sedation with precise targeting and effective ablation of the placenta using 400W acoustic power. Sonication time was 988 seconds with the whole procedure lasting for two hours. ***Results***: HIFU ablation was successfully achieved in approximately 70% of the placenta without injury to the adjacent organs. Serial ultrasound monitoring showed progressive placental reduction of 56%, 71%, and 75% by post HIFU day 12, 26, 36, respectively. Beta-hCG decreased from 11,395mIU/mL pre-HIFU to 14.6mIU/mL 34 days post-HIFU. On day 45 post-HIFU, expulsion of placental tissue measuring 8x3cm was reported, and on day 68 post-HIFU, repeat scan showed a small residual placental tissue of 0.8cc achieving 99.9% decrease from baseline. ***Conclusion*****:** The successful reduction in placental volume, normalization of Beta hCG levels, and the eventual spontaneous expulsion of the placental tissue underscores the therapeutic potential of HIFU as a non-invasive modality for PAS.

AUTOMATIC ASSESSMENT OF FETAL HEAD STATION VIA TRANSPERINEAL ULTRASOUND IN LABOR: ACCURACY AND CLINICAL RELIABILITY COMPARED TO DIGITAL VAGINAL EXAMINATION

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Problem statement: Accurate assessment of fetal head station (FHS) during labor is critical for planning the mode of delivery, preventing prolonged second-stage complications, and guiding timely clinical interventions. An incorrect evaluation of fetal descent can lead to inappropriate management, such as delayed intervention, failed instrumental deliveries (vacuum or forceps), or unnecessary emergency cesarean sections—thereby increasing the incidence of perineal trauma, postpartum hemorrhage, and fetal hypoxia. While conventional digital vaginal examination (DVE) is prone to high inter-observer variability due to fetal caput or molding, standard intrapartum transperineal ultrasound (TPU) adoption remains constrained by sonographer availability and operator expertise. ***Methods***: This prospective observational study enrolled 27 pregnant women in the second stage of labor with singleton fetuses in cephalic presentation. A total of 55 2D B-mode TPU acquisitions were captured across diverse station levels immediately prior to routine DVE. FHS was determined automatically by a novel image-segmentation algorithm (FHS_{aut}) and manually via digital examination (FHS_{dig}). Expert sonographic assessment (FHS_{exp}) performed on the identical TPU frames served as the reference gold standard. Statistical agreement and precision were evaluated using Spearman's correlation coefficient (ρ), coefficient of determination (R2), root mean square error (RMSE), and Bland–Altman plot analysis. ***Results***: The automated algorithm showed outstanding alignment with expert sonography (ρ=0.97, p<0.001, R2=0.95), delivering exceptional spatial accuracy (RMSE=0.32 cm). In contrast, DVE demonstrated substantially lower correlation with the gold standard (ρ=0.66, p<0.001, R2=0.52) and a threefold higher error magnitude (RMSE=0.97 cm). Bland–Altman analysis confirmed that achieved minimal mean bias with remarkably tight limits of agreement compared to the wide dispersion observed with. ***Conclusion***: The proposed automated TPU framework assesses fetal head station with high objective accuracy, minimal systematic bias, and clinically superior precision compared to manual evaluation. By eliminating operator subjectivity, this technology streamlines intrapartum ultrasound integration, providing reliable decision support to clinical staff during labor management.

SLING-SUPPORTED SKIN-TO-SKIN CONTACT AFTER CESAREAN BIRTH IN PRIMIPAROUS WOMEN: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Early skin-to-skin contact (SSC) after cesarean birth is frequently interrupted because of postoperative immobility and anesthesia-related limitations, which may negatively affect breastfeeding and neonatal physiological adaptation. Prolonged SSC is associated with improved maternal–infant bonding and breastfeeding outcomes; however, maintaining SSC after cesarean birth remains challenging. Sling-supported SSC may provide ergonomic support and facilitate longer and safer mother–infant contact. This study aimed to examine the effects of sling-supported SSC on contact duration, breastfeeding success, and neonatal physiological weight loss in primiparous women after cesarean delivery. ***Methods***: This randomized controlled trial included 69 primiparous women who underwent cesarean birth and their healthy term newborns. Participants were randomly assigned to the intervention group (sling-supported SSC, n=34) or the control group (standard SSC without sling support, n=35). During the first 48 hours postpartum, SSC duration, breastfeeding success, and neonatal physiological weight loss were assessed. Breastfeeding success was evaluated using the LATCH Breastfeeding Assessment Tool on postpartum days 0, 1, and 2. Neonatal weight was measured daily, and physiological weight loss percentages were calculated. Data were analyzed using independent samples t-test, chi-square test, and multiple linear regression analyses. The trial was prospectively registered at ClinicalTrials.gov (NCT06502860). ***Results***: Sling-supported SSC significantly prolonged contact duration compared with standard SSC, particularly on postpartum day 1 (p=0.006) and day 2 (p=0.010), with a higher overall mean SSC duration across the three-day postpartum period (p=0.003). Breastfeeding success was significantly higher in the sling group on postpartum day 0 (p=0.011), although no significant differences were observed on subsequent days. The proportion of neonates who experienced >7% physiological weight loss was significantly lower in the sling group (29.4% vs 54.3%, p=0.036). Regression analysis showed that sling use and gestational age were independent predictors of SSC duration. **Conclusion**: Sling-supported SSC is an effective nursing intervention that prolongs mother–infant contact, improves immediate breastfeeding success, and reduces excessive neonatal physiological weight loss following cesarean birth. Integrating sling-supported SSC into routine postoperative care may improve early maternal and neonatal outcomes.

THE EFFECT OF FATHERS' BREASTFEEDING ATTITUDES AND PARTICIPATION ON PATERNAL-INFANT ATTACHMENT

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Aim: The aim of this study was to determine the effect of fathers' breastfeeding attitudes and participation in the breastfeeding process on paternal-infant attachment. ***Methods***: This descriptive cross-sectional study was conducted among fathers of infants aged 6–12 months who attended the outpatient clinics of a state hospital located in southern Türkiye between January and April 2026. Data were collected using the Personal Information Form, Fathers' Breastfeeding Attitude and Participation Scale (F-BAPS), and Paternal Infant Attachment Questionnaire (PPAQ). Categorical data

obtained from the Personal Information Form were presented as frequencies (n) and percentages (%), while total scale scores were expressed as means and standard deviations. Spearman's correlation analysis was used to assess the relationships between the total scale scores. ***Results***: The mean scores obtained from the scales were 103.39 ± 10.84 for the Fathers' Breastfeeding Attitude and Participation Scale (F-BAPS) and 77.08 ± 8.03 for the Paternal Infant Attachment Questionnaire (PPAQ). The mean age of the infants of the participating fathers was 9.08 ± 1.97 months, while the mean amount of time fathers spent with their infants per day was 5.36 ± 2.86 hours. This duration ranged from 1 to 12 hours. Spearman's correlation analysis revealed a positive, moderate, and statistically significant relationship between the total PPAQ score and the total F-BAPS score (r=0.441; p<0.001). ***Conclusion***: The study found positive and statistically significant relationships between fathers' attitudes toward breastfeeding, their level of participation in the breastfeeding process, and paternal-infant attachment. These findings indicate that higher levels of fathers' positive attitudes toward and participation in the breastfeeding process are associated with stronger paternal-infant attachment, suggesting that fathers' active involvement in breastfeeding may be an important factor in supporting the father-infant relationship.

Keywords: *Breastfeeding; Fathers; Paternal Attachment*

THE RELATIONSHIP BETWEEN SENSE OF COHERENCE AND LABOR PAIN WITH POSTPARTUM DEPRESSION: A PROSPECTIVE COHORT STUDY

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Problem statement: This study was conducted to determine the relationship between intrapartum sense of coherence and labor pain with postpartum depression. ***Methods***: This prospective cohort study was conducted with 366 nulliparous and primiparous women who applied to a maternity hospital in Turkey. Data were collected through face-to-face interviews during labor and at 1st, 3rd, and 6th months postpartum. Data were collected using the Turkish version of the Rating Scale of Pain Expression during Childbirth (ESVADOPA-TR), the Revised Sense of Coherence Scale and the Edinburgh Postpartum Depression Scale. Data were analyzed using SPSS 22.0 software, and the significance level was accepted as p<0.05. ***Results***: The mean age of the participants was 24±3.52, and 65.8% experienced moderate labor pain. The total ESVADOPA-TR score was 8.06±2.87. The mean score on the Revised Sense of Coherence Scale was 41.06±6.37; the mean scores on the Edinburgh Postpartum Depression Scale were 11.67±4.41, 8.92±3.19, and 5.64±2.51 at 1, 3, and 6 months, respectively. It was found that depression scores increased in the 1st and 3rd months as labor pain increased, and women with a high sense of coherence had lower depression scores in the 1st month (p<0.05). No significant relationship was found between labor pain and depression in the 6th month. No statistically significant relationship was found between labor pain and sense of coherence (p=0.679). ***Conclusion***: Increased labor pain and low sense of coherence increase the risk of postpartum depression. Holistic approaches supporting pain management and psychological resilience should be prioritized in midwifery care.

Keywords: *Sense of coherence, labor pain, postpartum depression, salutogenesis, midwifery.*

EFFECT OF PARTNER-ADMINISTERED ENDORPHIN MASSAGE BEFORE CESAREAN BIRTH ON PREOPERATIVE ANXIETY AND PAIN: A QUASI-RANDOMISED CONTROLLED TRIAL

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Problem statement: Preoperative anxiety before cesarean birth may adversely affect maternal well-being and fetal outcomes. Because pharmacological interventions can cross the placenta and influence neonatal adaptation, safe and effective non-pharmacological approaches are needed. This study evaluated the effects of partner-administered endorphin massage on pain, anxiety, and serum cortisol levels before elective cesarean birth. ***Methods***: This quasi-randomised controlled trial was conducted between October 2023 and February 2025 at Manisa Celal Bayar University Hafsa Sultan Hospital. A total of 80 women were allocated to the intervention (n = 40) and control (n = 40) groups. Of these, 64 participants were included in the final analysis (intervention group, n = 33; control group, n = 31). The intervention group received 20 min of partner-administered endorphin massage accompanied by relaxation music on the morning of surgery, while the control group received routine nursing care. Pain was measured using the Visual Analog Scale (VAS), anxiety using the State-Trait Anxiety Inventory (STAI), and stress response through serum cortisol levels. Post-test outcomes were analyzed using analysis of covariance, adjusting for baseline values. ***Results***: The intervention group demonstrated significantly lower post-test VAS pain scores (− 0.84; 95% CI,−1.50 to − 0.19; p = 0.013; ηp^2=0.097). The STAI-State subscale score was also significantly lower in the intervention group, with a large effect size (adjusted mean difference: -10.53; 95% CI,−14.49 to − 6.58; p < 0.001; ηp^2=0.317). Serum cortisol levels were significantly lower in the intervention group (adjusted mean difference: −3.52; 95% CI,−4.96 to − 2.07; p < 0.001; ηp^2=0.280). No significant difference was observed in the STAI-Trait subscale score (p = 0.889). ***Conclusion***: Partner-administered endorphin massage accompanied by relaxation music was associated with lower immediate preoperative state anxiety and serum cortisol levels, as well as a modest reduction in pain, in this single-centre sample. Larger, prospectively registered trials with concealed allocation and appropriate attention-control conditions are needed before routine implementation can be recommended.

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THE RELATIONSHIP BETWEEN PERCEPTIONS OF INDIVIDUALIZED CHILDBIRTH CARE AND PERCEPTIONS OF CHILDBIRTH-RELATED TRAUMA IN POSTPARTUM WOMEN

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Problem statement: The literature contains guidelines explaining the relationship between individualized care and the perception of traumatic birth (as well as studies examining the relationship between respectful birth care and the perception of traumatic birth. However, no study examining the concepts of individualized care and the perception of traumatic birth together has been found in the literature. Therefore, this study aims to determine the relationship between individualized care and the perception of traumatic birth. ***Methods***: The study was designed as a descriptive and correlational research. The sample consisted of 420 women. Data were collected between January 15, 2025 and May 15, 2025 through an online questionnaire. The data were gathered using a Personal Information Form developed in line with the literature, the Individualized Care Scale–A (ICS-A), and the Perception of Traumatic Childbirth Scale (PTCS). Independent samples t-test, ANOVA (F) test, Bonferroni test, Pearson correlation analysis, and multiple linear regression analyses were used in data analysis. ***Results***: In the study, the mean ICS-A (3.39) and PTCS (94.38) scores of the women were found to be at a moderate level. According to the correlation analysis between ICS-A and PTCS, a significant negative relationship was found between ICS-A and all its sub-dimensions and PTCS. Multiple linear regression analysis was performed to explain the effect of ICS-A on PTCS. The clinical situation subscale of the ICS-A (t=-5.887; ß =-7.587) and the personal life situation subscale (t=-2.766; ß =-2.986) were found to have a statistically significant effect on the PTCS (p<0.05), while the decision-making subscale did not have a significant effect on the PTCS (p>0.05). ***Conclusion***: In conclusion, a statistically significant negative relationship was found between the perception of individualized care and the perception of childbirth-related trauma. Based on these findings, strengthening individualized care practices by midwives may play an important role in improving women`s birth experiences and reducing the perception of childbirth-related trauma. Furthermore, it is recommended that

more comprehensive studies be conducted on this topic with different sample groups and in different regions.

MULTIFETAL PREGNANCY

ASSOCIATION BETWEEN MODE OF CONCEPTION AND BIRTH-WEIGHT DISCORDANCE IN TWIN PREGNANCIES

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Problem statement: Birth-weight discordance (BWD) between twins is a clinically important marker of unequal fetal growth. Although assisted conception contributes substantially to twin pregnancies, evidence regarding the relationship between mode of conception and BWD remains limited. This study evaluated whether mode of conception was associated with BWD in twin pregnancies. ***Methods***: This cohort study included consecutive twin pregnancies undergoing first-trimester screening at two fetal medicine centres in Central Greece over five years. A prospectively maintained database included demographic characteristics, medical history, mode of conception and pregnancy outcomes. All participants provided informed consent, and de-identified data were analysed using R statistical software. Group differences were evaluated, followed by post-hoc comparisons. ***Results***: A total of 510 twin pregnancies were included: 48% conceived naturally, 40% through conventional in vitro fertilisation (IVF), 8% through intracytoplasmic sperm injection (ICSI), 2% through intrauterine insemination (IUI) and 2% using donor oocytes. The proportion of pregnancies with BWD differed significantly across conception groups ($p < 0.05$). Post-hoc analysis identified a significant difference between natural conception and ICSI. ***Conclusion***: Mode of conception may be associated with BWD in twin pregnancies, with a significant difference observed between natural conception and ICSI. Larger prospective studies are required to confirm these preliminary findings and determine their clinical relevance.
Disclosure of interest: *The authors declare no conflicts of interest.*

RISK FACTORS FOR INTERVENTION-REQUIRING POSTPARTUM HEMORRHAGE FOLLOWING CESAREAN DELIVERY IN TWIN PREGNANCIES: A RETROSPECTIVE COHORT STUDY

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Objective: Twin pregnancy is a well-established risk factor for postpartum hemorrhage (PPH). However, data regarding maternal and obstetric risk factors for clinically significant hemorrhage requiring therapeutic intervention remain limited. This study aimed to identify risk factors associated with intervention-requiring PPH among women with twin pregnancies undergoing cesarean delivery. ***Methods***: This retrospective cohort study included women with twin pregnancies who underwent cesarean delivery at a tertiary referral center between January 2021 and December 2024. Intervention-requiring PPH was defined as hemorrhage requiring at least one of the following interventions: packed red blood cell transfusion, intrauterine balloon tamponade, uterine artery embolization, or peripartum hysterectomy. Maternal, obstetric, and neonatal characteristics were compared between women with and without intervention-requiring PPH. Univariable and multivariable logistic regression analyses were performed to identify independent risk factors. ***Results***: Among 245 women included in the analysis, 81 (33.1%) experienced intervention-requiring PPH. Compared with the control group, women with PPH delivered at an earlier gestational age (34.5 vs. 35.3 weeks, p=0.028) and were more likely to undergo emergency cesarean delivery (43.2% vs. 29.3%, p=0.043), have a history of previous cesarean delivery (25.9% vs. 12.8%, p=0.017), preeclampsia (17.3% vs. 7.9%, p=0.047), and placenta previa (12.3% vs. 0.6%, p<0.001). In multivariable analysis, placenta previa was the strongest predictor of intervention-requiring PPH (adjusted odds ratio [aOR] 24.7, 95% confidence interval [CI] 4.41–463.4, p=0.003). Previous cesarean delivery (aOR 2.60, 95% CI 1.25–5.38, p=0.010) and preeclampsia (aOR 1.73, 95% CI 1.10–2.71, p=0.017) were also independently associated with PPH. In a sensitivity analysis excluding pregnancies complicated by placenta previa, previous cesarean delivery (aOR 2.65, 95% CI ***1.31–5.38, p=0.006) and preeclampsia (aOR 1.63, 95% CI 1.04–2.54, p=0.031) remained significant risk factors. Conclusion***: Among women with twin pregnancies undergoing cesarean delivery, placenta previa was the strongest predictor of intervention-requiring PPH. Importantly, previous cesarean delivery and preeclampsia remained independently associated with PPH even after accounting for placental pathology. These findings may help identify high-risk patients who could benefit from enhanced hemorrhage preparedness and multidisciplinary peripartum management.

ORAL PRESENTATION SESSION 06
GYNECOLOGY: GYNECOLOGICAL ONCOLOGY | POI

GYNECOLOGICAL ONCOLOGY

RESECTION OF AN ISOLATED ABDOMINAL WALL METASTASIS 5 YEARS AFTER PRIMARY ENDOMETRIOID CARCINOMA OF THE OVARY

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We report a case of a 56-year-old female with abdominal wall metastasis (AWM) from a primary endometrioid carcinoma of the ovary. Five years prior, the patient underwent total abdominal hysterectomy with bilateral salpingooophorectomy and complete surgical staging for papillary-type endometrioid carcinoma of the ovary stage IC2. She received adjuvant chemotherapy consisting of six cycles of Paclitaxel and Carboplatin. No relapse was observed thereafter. However, five years after the initial surgery, the patient noted a palpable mass in the left lower abdomen. Whole abdominal CT scan with triple contrast revealed a 3 x 4 x 5 cm mass at the left rectus abdominis muscle. En bloc excision of the abdominal wall mass was done. The resected tissue was pathologically characterized as metastatic papillary adenocarcinoma consistent with tumor recurrence. The patient received chemotherapy with Paclitaxel and Carboplatin. She is on regular follow-up and is disease-free for 2 years and 5 months.

THE PATH TO SCREENING: EXAMINING WOMEN`S PERCEPTIONS OF BENEFITS AND BARRIERS TO CERVICAL CANCER SCREENING

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Problem statement: The aim of this study is to evaluate perceptions of the benefits and barriers to participation in cervical cancer screening among participants aged 30-65 years, in the context of health literacy, cervical cancer knowledge, and subjective norms. ***Methods***: This study has a predictive correlational design. 417 participants who applied to the family medicine unit of a general hospital in Turkey were included in the study. Data were collected through face-to-face interviews conducted between December 2025 and April 2026 using the Health Belief Model Scale for Cervical Cancer and Pap Smear Test, the Health Literacy Scale, the Cervical Cancer Knowledge Scale, and the Subjective Norm Questionnaire. Multivariate regression analysis, multigroup structural equation modeling, and latent profile analysis were performed to evaluate the data. ***Results***: The mean age of the participants was 42.48 ± 9.07; 66% had a high school education or higher. 45.6% of the participants had not undergone cervical cancer screening. According to multiple regression analysis, interactive health literacy was the most important predictor of perceived benefits (β=0.311), while functional health literacy was a strong predictor of perceived barriers (β=-0.571). Among women who participated in screening, interactive health literacy was the primary predictor of perceived benefit (β=0.405), whereas among those who did not participate, perceived benefit was largely explained by subjective norms (β=0.302). However, in both groups, functional

health literacy was the strongest predictor of perceived barriers to screening (β =-0.547; β =-0.580). In this study, latent profile analysis revealed that women's perceptions of benefits and barriers could be categorised into two distinct latent profiles based on their levels of cancer knowledge, subjective norms and health literacy. These profiles differed significantly in terms of intention to participate in cervical cancer screening (p<0.001). ***Conclusion***: These findings highlight that participation in cervical cancer screening is a complex decision-making process shaped by health literacy, knowledge, and social interactions. Interventions to increase screening participation may be more effective when planned using profile-based approaches, particularly by targeting women with low health literacy and those more influenced by social norms.

DIAGNOSTIC PERFORMANCE OF INTRATUMORAL DOPPLER RESISTANCE INDEX IN DIFFERENTIATING MALIGNANT FROM BENIGN ADNEXAL MASSES: COMPARISON WITH IOTA SIMPLE RULES

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Problem statement: Intratumoral vascular resistance index (RI) has been proposed as an adjunct for differentiating benign from malignant adnexal masses, but its incremental diagnostic value alongside the validated International Ovarian Tumor Analysis (IOTA) Simple Rules, particularly in indeterminate cases, remains unclear. ***Methods***: In this prospective single-center study, 432 women (309 with benign and 123 with malignant masses) undergoing surgery for an adnexal mass underwent preoperative transvaginal power Doppler ultrasonography. Systematic vascular mapping identified small-caliber intratumoral vessels from which the Pourcelot RI was calculated. Receiver operating characteristic (ROC) analysis assessed the diagnostic performance of RI, IOTA Simple Rules, and their combination for discriminating malignant from benign masses. Areas under the curve (AUCs) were compared using the DeLong test. RI performance was additionally evaluated among masses classified as indeterminate by IOTA Simple Rules. ***Results***: In our study group 1830 tumor blood vessels were analyzed. Median RI was significantly lower in malignant than in benign masses (0.360 vs 0.554, p<0.001). RI discriminated malignancy with an AUC of 0.928 (95% confidence interval, 0.901–0.956), with an optimal cutoff of ≤0.41 (sensitivity 89.4%, specificity 90.3%). IOTA Simple Rules achieved an AUC of 0.890, significantly lower than RI (ΔAUC=0.038, p=0.027). The combined RI–IOTA model achieved the highest AUC (0.944), significantly outperforming both RI alone (p=0.011) and IOTA Simple Rules alone (p<0.001). Among 71 masses with indeterminate IOTA classification, RI retained good discriminatory performance (AUC 0.840; cutoff ≤0.40; sensitivity 83.3%; specificity 84.9%). ***Conclusion***: Intratumoral power Doppler RI is a strong discriminator of malignant from benign adnexal masses and complements IOTA Simple Rules. Its preserved diagnostic accuracy in indeterminate masses supports its potential value as an adjunct in preoperative assessment, particularly when IOTA Simple Rules are inconclusive.

IMPLEMENTATION OF MINIMALLY INVASIVE SURGERY WITHIN A GYNECOLOGIC ONCOLOGY FELLOWSHIP IN EL SALVADOR: THE FIRST SEVENTEEN CASES AT A NATIONAL REFERRAL HOSPITAL

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Problem statement: Minimally invasive surgery (MIS) is the standard approach for endometrial cancer staging and is increasingly applied to early cervical and ovarian disease, yet access in low- and middle-income countries remains limited by equipment, training, and case volume. Reports of how MIS is actually established within a gynecologic oncology fellowship in such settings are scarce. We describe the first cases of a structured MIS implementation programme at a national referral hospital in El Salvador. ***Methods***: We reviewed all 17 consecutive women undergoing gynecologic cancer surgery during fellowship surgical missions at Hospital Nacional San Rafael between May and August 2026. Fellows and local staff operated under graduated supervision by visiting faculty. A laparoscopic approach was the default, with laparotomy reserved for radical hysterectomy and cytoreduction. We recorded age, primary site, procedure, surgical approach, lymphadenectomy, and final pathology with International Federation of Gynecology and Obstetrics (FIGO) stage. ***Results***: Median age was 60 years (range 27–72; age documented in 13 patients). The primary site was endometrium in 13 patients, cervix in 3, and ovary in 1. Fourteen of 17 procedures (82.4%) were completed minimally invasively, including hysterectomy with bilateral salpingo-oophorectomy, pelvic lymphadenectomy, and peritoneal biopsy. Three procedures (17.6%) were performed by laparotomy: two abdominal radical hysterectomies for cervical cancer and one total abdominal hysterectomy with bilateral salpingo-oophorectomy, omentectomy, and cytoreduction for uterine carcinosarcoma. Lymphadenectomy was performed in 8 patients, including para-aortic dissection in 1. Final pathology confirmed malignancy in 16 of 17; disease was FIGO stage I in the majority, with stage IIIA endometrial, IB2 cervical, and stage II ovarian disease each represented. ***Conclusion***: A minimally invasive approach was achieved in over 80% of gynecologic cancer operations during the first months of a fellowship-based implementation programme in a resource-limited national hospital, including complete surgical staging with lymphadenectomy. Laparotomy remained appropriate for radical hysterectomy and cytoreduction. These early results indicate that MIS for gynecologic malignancy can be introduced sustainably through structured fellowship training and international collaboration, and support expansion of the program with prospective capture of operative and oncologic outcomes.

THE RELATIONSHIP BETWEEN STRENGTH OF RELIGIOUS FAITH, PSYCHOLOGICAL RESILIENCE, AND FEAR OF RECURRENCE IN GYNAECOLOGICAL CANCER PATIENTS: A PATH ANALYSIS

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Problem statement: Gynecological cancer causes significant psychological distress, particularly due to the fear of recurrence, and negatively affects patients` quality of life and psychosocial adjustment. Although religious belief strength and psychological resilience are seen as important protective factors in coping with cancer, the relationship between these variables has not been sufficiently researched in gynecological cancer patients. In particular, the mediating role of psychological resilience in the relationship between religious belief strength and fear of recurrence has not yet been clarified. ***Methods***: Ninety-one patients who were treated at the gynecology and oncology clinics of a university hospital participated in this descriptive, cross-sectional, and correlational study. The data for the study were gathered through in-person interviews that were conducted using "the Personal Information Form, the Santa Clara Strength of Religious Faith Questionnaire (SCSORFQ), the Brief Psychological Resilience Scale (BPRS), and the Fear of Cancer Recurrence Inventory (FCRI)". ***Results***: According to the findings, religious faith had a beneficial impact on psychological resilience (b=0.979, 95% CI [0.772 to 1.185], p<0.05) and an adverse effect on fear of cancer recurrence (b=-1.786, 95% CI [-3.011 to -0.561], p<0.05). It was determined that psychological resilience had an adverse effect on the fear of cancer recurrence (b=-2.275, 95% confidence interval [-3.159 to -1.390], p<0.05). In addition, it was determined that 49% of psychological resilience may be explained by the strength of one`s religious faith. The total effect of the strength of religious faith on fear of cancer recurrence was found to be negative and significant (b = -4.0142, 95% CI [-4.994 to -3.033], p < 0.05). Additionally, it was discovered that the indirect effect of the strength of religious faith on fear of cancer recurrence through psychological resilience was negative and significant (b = -2.227, 95% CI [-3.692 to -1.295], p < 0.05). The model that was developed accounts for 65% of the concern that cancer would return after treatment. ***Conclusion***: As religious faith strengthens, psychological resilience increases, while

fear of recurrence decreases. It has been concluded that religious faith reduces the fear of cancer recurrence both directly and indirectly by increasing psychological resilience.

Keywords: *Gynaecological Cancer, Fear of Recurrence, Psychological Resilience, Strength of Religious Faith*

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PROGNOSTIC SIGNIFICANCE OF POST-TREATMENT TOTAL LYMPHOCYTE COUNT IN LOCALLY ADVANCED CERVICAL CANCER AFTER DEFINITIVE CHEMORADIOTHERAPY

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Background: Studies evaluating the impact of lymphopenia after the completion of chemoradiotherapy on survival outcomes in patients with cervical cancer have been inconsistent, limited by small sample sizes, and rarely focused on post-treatment total lymphocyte count (TLC). Consequently, this study evaluated the association between post-treatment TLC and survival outcomes in patients with locally advanced cervical cancer treated with concurrent chemoradiotherapy. ***Methods***: We retrospectively reviewed the data of 298 patients with locally advanced cervical cancer who showed a definite complete response to concurrent chemoradiotherapy between January 2011 and December 2018. We obtained clinicopathological and TLC data at the end of treatment and at 1-year after treatment. The associations between TLC, overall survival (OS), and disease-free survival (DFS) were evaluated. ***Results***: Patients with post-treatment TLC ≥ 500 cells/mm3 at the end of treatment tended to have better DFS and OS than those with post-treatment TLC < 500 cells/mm3, although the differences did not reach statistical significance (p = 0.11 and p = 0.14, respectively). At the 1-year landmark, the OS and DFS rates were significantly higher in patients with post-treatment TLC ≥ 1000 cells/mm3 than in those with TLC < 1000 cells/mm3 (OS: 76.0% vs 48.4%, p = 0.00026; DFS: 74.5% vs 44.3%, p = 0.00034). Moreover, post-treatment TLC ≥ 1000 cells/mm3 was identified as an independent favorable prognostic factor for OS and DFS in both univariate (HR 0.36, 95% CI 0.21–0.64, p < 0.001; and HR 0.37, 95% CI 0.21–0.65, p < 0.001, respectively) and multivariate analyses (HR 0.41, 95% CI 0.22–0.74, p = 0.003; and HR 0.42, 95% CI 0.23–0.76, p = 0.004, respectively). ***Conclusion***: While TLC at the end of treatment showed no significant association, persistent lymphopenia at 1 year post-treatment emerged as an independent poor prognostic factor for survival in locally advanced cervical cancer.

CONCOMITANT UTERINE ADENOSARCOMA AND OVARIAN SERTOLI CELL TUMOR: A CASE REPORT AND LITERATURE REVIEW OF RARE SYNCHRONOUS GYNECOLOGIC NEOPLASMS

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Problem statement: Uterine adenosarcomas are rare biphasic tumors composed of benign epithelial and malignant stromal components. Sertoli cell tumors are uncommon ovarian sex cord-stromal neoplasms that may present with hormonal manifestations or a pelvic mass. Their synchronous occurrence is exceptionally rare and diagnostically challenging, potentially reflecting shared genetic or hormonal risk factors. ***Methods***: We report the clinical presentation, diagnostic evaluation, surgical management, and histopathologic findings of a 50-year-old multiparous woman who presented with prolonged heavy vaginal bleeding and acute urinary retention. Imaging demonstrated a large endometrial mass with tumor prolapsing through the cervix. She underwent diagnostic cystourethroscopy, ureteral stenting, and extrafascial hysterectomy with bilateral salpingo-oophorectomy. The surgical specimens were evaluated histologically and through immunohistochemistry. ***Results***: Histopathologic and immunohistochemical examination confirmed a low-grade uterine adenosarcoma confined to the endometrium and a synchronous Sertoli cell tumor of the right ovary. ***Conclusion***: The synchronous occurrence of uterine adenosarcoma and an ovarian Sertoli cell tumor is rare and presents important diagnostic and management challenges. Comprehensive histopathologic evaluation, supported by immunohistochemistry, is essential for accurate diagnosis. Multidisciplinary management is important in optimizing the care of patients with rare synchronous gynecologic neoplasms.

EMOTIONAL AND PSYCHOSOCIAL IMPACT OF GESTATIONAL TROPHOBLASTIC NEOPLASIA ON PATIENTS AND THEIR PARTNERS: AN EXPLORATORY MIXED-METHODS STUDY

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Problem statement: Gestational trophoblastic neoplasia (GTN) is a highly curable gynecologic malignancy; however, its psychosocial impact remains underexplored, particularly in low-resource settings. Beyond chemotherapy and prolonged surveillance, patients and their partners experience emotional distress, fear of recurrence, financial burden, and relationship challenges. This study aimed to characterize the multidimensional psychosocial burden of GTN among patients and their partners in a resource-limited tertiary referral center. ***Methods***: An exploratory sequential mixed-methods study was conducted among 15 patients with GTN and their partners at SPMC-IWNH from April to October 2025. Semi-structured interviews were analyzed using phenomenological thematic analysis. Quantitative assessment utilized the Functional Assessment of Cancer Therapy–General (FACT-G) and the State–Trait Anxiety Inventory (STAI). Qualitative and quantitative findings were integrated through triangulation. ***Results***: Seven major themes emerged: anxiety and fear, emotional distress, coping through faith and family support, stigma and social withdrawal, treatment burden and financial strain, body image concerns, and caregiver strain. Patients reported persistent fear of recurrence, uncertainty during surveillance, emotional exhaustion, and altered self-image, while partners described anticipatory anxiety, sleep disturbances, financial stress, and caregiving fatigue. Quantitative findings demonstrated impaired quality of life, with a mean FACT-G score of 57.1 ± 8.0; emotional well-being was the most affected domain (10.7 ± 1.9). High STAI-State anxiety was observed in 46.7% of patients, while 40.0% demonstrated high trait anxiety. Despite substantial psychological burden, social and family well-being remained relatively preserved, highlighting the protective role of family support and spirituality. ***Conclusion***: GTN imposes substantial emotional and psychosocial burden on both patients and their partners, with anxiety and emotional vulnerability persisting throughout treatment and surveillance. These findings underscore the importance of multidisciplinary, partner-inclusive, and integrated psychosocial care in gynecologic oncology, particularly in resource-limited settings. Despite the high cure rates of GTN, emotional recovery often lags behind clinical remission.

Disclosure of interest: *The authors declare no conflict of interest.*

LEIOMYOSARCOMA WITH A HARD EDGE: EXPLORING OSTEOSARCOMATOUS DIVERGENCE A CASE OF OSTEOSARCOMATOUS DIFFERENTIATION IN LEIOMYOSARCOMA

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Problem statement: Uterine osteosarcoma is an exceptionally rare and aggressive malignancy with a poor prognosis. Osteosarcomatous differentiation arising in uterine leiomyosarcoma or a pre-existing leiomyoma is particularly uncommon, and its pathogenesis remains unclear. This report presents a rare case of uterine sarcoma with osteosarcomatous differentiation and highlights its aggressive behavior and surgical challenges. ***Methods***:This is a case report of a 54-year-old nulligravid postmenopausal woman who presented with progressive abdominal enlargement, bloatedness, early satiety, and hypogastric pain. Transvaginal ultrasound and computed tomography demonstrated multiple heterogeneous uterine masses, with the largest measuring approximately 30 cm and showing cystic and calcific degeneration. Exploratory laparotomy, bilateral salpingo-oophorectomy, and biopsy of the mass and abdominal implants were performed. Histopathologic and immunohistochemical findings were reviewed. ***Results***: Intraoperatively, a large irregular

heterogeneous mass arising from the uterine fundus was densely adherent to the small bowel, mesentery, omentum, and adjacent structures. Extensive adhesions, involvement of a 20-cm small-bowel segment, and significant hemorrhage precluded complete tumor resection. Estimated blood loss was 5,000 mL, requiring transfusion of packed red blood cells, fresh frozen plasma, and platelets, with vasopressor support. Histopathology demonstrated a malignant mesenchymal neoplasm with abundant stromal osteoid deposits and osteosarcomatous differentiation. Strong and diffuse SATB2 nuclear staining supported osteoblastic differentiation, while negative CD34 staining made angiosarcoma less likely. Tumor implants were identified in the small bowel. The final diagnosis was Stage IV uterine sarcoma with osteosarcomatous differentiation involving the small bowel, rectum, and rectus abdominis. The patient was subsequently planned for gemcitabine and docetaxel chemotherapy, with reassessment for possible interval debulking surgery. Only a small number of cases of heterologous sarcomatous differentiation in uterine leiomyomas have been reported, with some demonstrating multiple malignant mesenchymal components. ***Conclusion:*** Osteosarcomatous differentiation in uterine sarcoma is exceedingly rare and may demonstrate aggressive, locally invasive behavior. This case underscores the diagnostic complexity of heterologous osteosarcomatous differentiation and the substantial surgical challenges associated with advanced disease. Multidisciplinary management is essential, while treatment options remain limited and largely systemic or palliative.

REWRITING SEXUAL SCRIPTS IN WOMEN WITH GYNECOLOGICAL CANCER: A PHENOMENOLOGICAL STUDY

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Problem statement: Gynecological cancer and its treatments profoundly affect women`s sexuality, body image, intimate relationships, and perceptions of femininity. Although previous studies have extensively documented treatment-related sexual dysfunction and physical symptoms, limited evidence exists regarding how women reconstruct the meaning of sexuality after cancer. Sexuality is not solely a biological function but is shaped by personal experiences, interpersonal relationships, and sociocultural expectations. Guided by Sexual Script Theory, this study aimed to explore how women diagnosed with gynecological cancer reconstruct their sexual scripts following diagnosis and treatment. ***Methods***: A descriptive phenomenological study was conducted with 16 women aged 28–61 years diagnosed with cervical, endometrial, or ovarian cancer. Participants were recruited through purposive sampling from the gynecology service of a university hospital. Data were collected through face-to-face, semi-structured interviews. Interview transcripts were analyzed using Colaizzi`s seven-step phenomenological method, and the findings were interpreted through the theoretical lens of Sexual Script Theory. ***Results***: Three interconnected themes emerged. The first theme, Rediscovering Womanhood in a Broken Mirror, reflected women`s intrapsychic reconstruction of femininity and sexuality following changes in body image and reproductive identity. Younger women were more likely to associate reproductive loss with diminished femininity, whereas older women described womanhood as extending beyond reproductive organs. The second theme, A Two-Person Illness: Rebuilding Intimacy with a Partner, illustrated changes in intimacy, temporary disruption of sexual relationships, feelings of inadequacy toward partners, and the gradual reconstruction of emotional and physical closeness. The third theme, The Silent Woman: Negotiating Social Expectations, revealed that while some women encountered stigmatizing messages questioning their femininity, others experienced acceptance and supportive responses from their social environment, facilitating adaptation and resilience. ***Conclusion***: Gynecological cancer transforms sexuality beyond physical functioning and initiates a multidimensional process of rewriting sexual scripts at individual, interpersonal, and sociocultural levels. These findings emphasize the need for person-centered oncology care that integrates routine assessment of sexuality, acknowledges sociocultural influences, and supports women in reconstructing healthy sexual identities after treatment.

Disclosure of interest: *The authors declare no conflicts of interest.*

IS COMPLETION SURGERY NECESSARY AFTER FERTILITY-SPARING TREATMENT OF EARLY-STAGE OVARIAN CANCER? A CASE SERIES OF TEN WOMEN IN WHOM PRESERVED FERTILITY WAS NEVER USED

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Problem statement: Fertility-sparing surgery is accepted for selected women with early-stage epithelial ovarian cancer. Completion hysterectomy with removal of the remaining adnexa is commonly recommended once childbearing is complete, based on concern for occult disease within the retained reproductive organs, yet its pathologic yield is poorly characterized. We asked whether completion surgery identified occult malignancy or altered management in women who never achieved pregnancy. ***Methods***: We retrospectively reviewed 10 women aged 22–47 years treated with fertility-sparing surgery for early-stage epithelial ovarian cancer at Hospital Nacional San Rafael between 2023 and 2025. All underwent unilateral salpingo-oophorectomy with surgical staging, preserving the uterus and contralateral adnexa, with adjuvant carboplatin–paclitaxel given by clinicopathologic risk. We recorded age, body mass index (BMI), stage, histology, grade, reproductive outcome, interval to completion surgery, completion pathology, recurrence, and disease status. ***Results***: Median age at diagnosis was 34 years (range 22–47) and median BMI was 34 kilograms per square metre. Histology was serous in 4 patients, endometrioid in 2, and other epithelial subtypes in 4. Stage was IA in 1, IC1 in 3, IC2 in 2, and IC3 in 4. All received 6 cycles of adjuvant carboplatin–paclitaxel. No patient conceived or delivered over a median follow-up of 24 months (range 15–38). Completion surgery was performed in 6 patients at a median of 24 months (range 18–32); final pathology showed no residual or occult malignancy in all 6 specimens (100%). One recurrence occurred, 9 patients (90%) were alive without evidence of disease, and none died. ***Conclusion***: Fertility preservation yielded no pregnancy or live birth, and completion surgery identified no occult malignancy in the retained organs. These findings question routine completion hysterectomy and contralateral salpingo-oophorectomy in disease-free women no longer pursuing conception, particularly those with obesity, in whom further surgery carries added perioperative risk. The absence of reproductive success underscores the need for explicit preoperative counselling on realistic live-birth expectations. Larger prospective studies are needed; endometrioid histology may warrant separate consideration given its association with synchronous endometrial pathology.

POI

HORMONE THERAPY UTILIZATION IN WOMEN WITH PREMATURE OVARIAN INSUFFICIENCY: A MULTICENTER RETROSPECTIVE STUDY FROM SAUDI ARABIA

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Problem statement: Premature ovarian insufficiency (POI) is associated with increased risks of cardiovascular disease, osteoporosis, cognitive impairment, and reduced quality of life. International guidelines recommend hormone therapy (HT) until the average age of natural menopause. ***Methods***: We set out to examine the diagnostic and treatment patterns of POI in tertiary care settings in Saudi Arabia, with a focus on hormone therapy (HT) use. We conducted a retrospective chart review, at three hospitals from February 2002 to May 2024. POI was defined as FSH > 25 IU/L. Patients aged 40 years or below, who underwent follicle-stimulating hormone (FSH) testing based on classic symptoms, were identified and included. Exclusion criteria included incomplete demographic or clinical data and duplicate test records. Among 255,204 eligible patients, 22,420 underwent FSH testing, of whom 1,132 met POI criteria. We performed a sample size calculation based on a pilot dataset (prevalence of HT use = 35.7%). Based on this, 205 notes were analysed using descriptive statistics and comparative analysis. ***Results***: POI prevalence among tested women was 5.05% (95% CI: 4.77-5.34). Only 35.6% of women with POI received HT. Uptake was highest in genetically confirmed cases (62.1%) and lowest in cases with XY chromosomal

abnormalities (8.3%) or iatrogenic causes (0%). Amenorrhea (42.4%) was the most common presenting symptom and significantly associated with HT use (P = 0.001). Among patients with a history of chemotherapy or bone marrow transplantation (BMT), HT use was observed in 35.1% of those treated for malignancy and 34.0% for non-malignant conditions. HT uptake remained low despite diagnoses of osteopenia (6.8%) and osteoporosis (4.9%). ***Conclusions*****:** HT is underutilized among women with POI. Variability in prescription reflects lack of national guidance and insufficient physician training. Persistent misapplication of the Women's Health Initiative findings to women with POI has contributed to under prescribing and premature discontinuation of HT. Importantly, following publication of these findings, KFSH&RC approved the development of a dedicated Post-Cancer Premature Ovarian Insufficiency Survivorship Clinic to provide evidence-based hormone therapy and long-term multidisciplinary care for cancer survivors with treatment-induced POI, demonstrating the immediate translation of research into clinical practice.

Declaration*: We declare no competing interests.*

SUSTAINABLE WOMEN'S HEALTHCARE: TRANSLATING PLANETARY HEALTH INTO CLINICAL PRACTICE IN GYNECOLOGY AND REPRODUCTIVE MEDICINE

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Problem statement: Healthcare contributes substantially to greenhouse gas emissions while climate change and environmental pollution themselves adversely affect human and reproductive health. Gynecology and reproductive medicine therefore face a dual responsibility: delivering high-quality care while reducing the environmental impact generated by healthcare. We evaluated practical sustainability strategies applicable to hospitals and considered their relevance to women's healthcare. ***Methods***: An integrative narrative review was performed using PubMed, Google and Google Scholar with predefined English and German search terms addressing sustainability, healthcare, environmental health and hospital practices. Recent literature was prioritized and evidence was clustered according to recurring sustainability domains, including human well-being, energy transition, sustainable infrastructure and transportation, food systems, waste management and pollution reduction. International approaches were considered alongside the German healthcare setting. ***Results***: Healthcare accounts for approximately 4.4% of global greenhouse gas emissions and 5.2% in Germany. More than 70% of healthcare-related emissions originate from supply chains, while direct healthcare-facility emissions and electricity, heating and cooling account for additional substantial proportions. Relevant interventions include energy-efficient infrastructure, renewable energy, sustainable procurement, waste reduction, environmentally conscious food systems, digitalization and telemedicine, and sustainable transportation. Preventive strategies may provide an additional link between health and sustainability by reducing disease burden and resource-intensive treatment. Major implementation barriers include workforce shortages, financial constraints and technical or regulatory complexity. Successful implementation requires baseline assessment, committed leadership, staff engagement, adequate resource allocation and sustainability reporting. ***Conclusion***: Sustainability should become an integral component of healthcare delivery rather than an isolated environmental initiative. In women's healthcare, combining prevention, resource-conscious clinical pathways, sustainable procurement, digital solutions and organizational change offers opportunities to reduce environmental impact while maintaining patient-centered, high-quality care. Gynecology and reproductive medicine can contribute substantially to environmentally resilient healthcare systems.

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UTERINE PATHOPHYSIOLOGY

GYNECOLOGIC DISORDERS ASSOCIATED WITH CHRONIC ENDOMETRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF ASSOCIATION AND PREVALENCE

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Problem statement: Chronic endometritis (CE) is increasingly recognized as a relevant condition in women with infertility, although the gynecologic disorders associated with a higher likelihood of CE remain incompletely defined. We assessed both the association with, and prevalence of, CE in women with tubal obstruction, hydrosalpinx, endometrial polyps, submucosal fibroids, isthmocele, recurrent intrauterine adhesions, endometriosis and adenomyosis. ***Methods***: We searched PubMed, Embase, Web of Science, Cochrane CENTRAL, ClinicalTrials.gov and ICTRP from inception to 15 November 2025. Two complementary meta-analyses were performed. The association meta-analysis included controlled studies reporting absolute CE frequencies in exposed and non-exposed women and estimated pooled odds ratios (ORs) with 95% confidence intervals (95% CIs). The prevalence meta-analysis included cohort studies, uncontrolled studies and case series reporting CE frequency among exposed women, estimating pooled proportions with 95% CIs. DerSimonian–Laird random-effects models were used; OR confidence intervals were calculated with Wald's method. Heterogeneity was assessed using Higgins' I^2 and Cochrane's Q, with I^2>50% considered substantial. Risk of bias was evaluated with Joanna Briggs Institute tools and certainty of evidence with GRADE methodology. ***Results***: Association analyses included tubal obstruction (4 studies), hydrosalpinx (5), endometrial polyps (8), submucosal fibroids (3), isthmocele (3), recurrent intrauterine adhesions (3), endometriosis (5) and adenomyosis (1). CE was associated with recurrent adhesions (OR 7.56, 95% CI 1.41–40.55), tubal obstruction (3.29, 2.14–5.04), polyps (3.23, 1.92–5.44), endometriosis (3.10, 1.56–6.18), hydrosalpinx (2.94, 1.57–5.50) and isthmocele (2.91, 1.16–7.30); submucosal fibroids were not significantly associated (2.11, 0.73–6.09). Prevalence analyses included tubal obstruction (5 studies), hydrosalpinx (5), polyps (17), isthmocele (5), recurrent adhesions (3) and

endometriosis (6), with pooled CE prevalences of 33%, 40%, 47%, 54%, 49% and 39%, respectively. The single available adenomyosis study reported a CE prevalence of 75%. No eligible studies were available for the prevalence analysis of submucosal fibroids. ***Conclusion***: CE appears more frequent in several gynecologic disorders, although the strength and consistency of the evidence vary across conditions. These findings suggest that targeted CE assessment may deserve consideration in women with infertility, while prospective studies are needed to clarify the direction and clinical relevance of these associations.

THERAPEUTIC APPROACHES FOR CHRONIC ENDOMETRITIS IN REPRODUCTIVE FAILURE: UPDATED SYSTEMATIC REVIEW AND META-ANALYSIS

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Problem statement: Chronic endometritis (CE) is a persistent low-grade endometrial inflammation, frequent in women with recurrent implantation failure (RIF), recurrent pregnancy loss (RPL) and unexplained infertility. Whether treatment improves reproductive outcomes, or whether benefit depends on documented resolution, remains unclear. ***Methods***: This review followed PRISMA and a PROSPERO-registered protocol (CRD420251157354). PubMed/MEDLINE, EMBASE, Web of Science, Cochrane Library, Google Scholar, ClinicalTrials.gov, ISRCTN, WHO-ICTRP and EudraCT were searched from inception to September 2025 without language restriction; reference lists were hand-searched. Randomised, cohort and case-control studies of women with CE diagnosed by histology, immunohistochemistry, hysteroscopy or molecular microbiology and treated with antibiotics were eligible. No CD138 plasma-cell threshold was imposed, given the absence of consensus. Risk of bias was rated with the Newcastle-Ottawa Scale. Five comparisons were pre-specified: resolved CE versus CE-negative controls, versus persistent CE and versus untreated CE, and persistent or untreated CE versus controls. Live birth was the primary outcome; clinical pregnancy and miscarriage secondary. Odds ratios (OR) were pooled with DerSimonian-Laird random-effects models (RevMan 5.4.1); heterogeneity was examined with Cochran Q and I^2, subgroups (RIF, RPL, mixed infertility) were defined a priori, publication bias explored with funnel plots and certainty with GRADE. ***Results***: Compared with CE-negative controls, resolved CE achieved higher live birth (18 studies; OR 1.46, 95% CI 1.12-1.90; I^2=68%) and clinical pregnancy (17 studies; OR 1.52, 1.12-2.04; I^2=71%), with no difference in miscarriage (15 studies). Relative to persistent CE, resolution yielded OR 3.99 (2.35-6.78) for live birth and 4.43 (2.65-7.42) for clinical pregnancy (5 studies each; I^2=0%). Versus untreated CE, resolved CE improved live birth (3 studies; OR 3.26, 1.73-6.15) and reduced miscarriage (2 studies; OR 0.13, 0.03-0.59). Persistent CE lowered live birth versus controls (5 studies; OR 0.50, 0.36-0.69), as did untreated CE (5 studies; OR 2.05, 1.31-3.22 favouring controls). ***Conclusion***: Reproductive outcomes improve only when CE resolution is confirmed, not with treatment alone. Antibiotic therapy should therefore be followed by a test of cure, preferably endometrial biopsy, before transfer. Active screening is justified in reproductive failure, especially when conditions associated with endometrial dysbiosis coexist. Standardised diagnostic criteria and adequately powered randomised trials remain priorities.

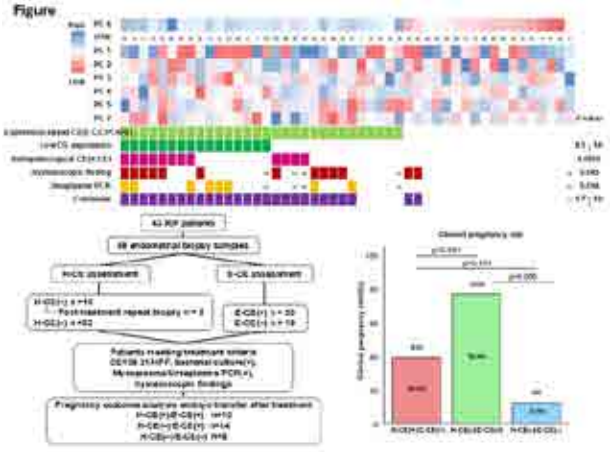
CAN ENDOMETRIAL TRANSCRIPTOMICS IDENTIFY CHRONIC ENDOMETRITIS BEYOND CD138-BASED HISTOPATHOLOGY IN RECURRENT IMPLANTATION FAILURE?

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Problem statement: Chronic endometritis (CE) is implicated in recurrent implantation failure (RIF), but its diagnostic criteria remain controversial, particularly regarding the threshold of CD138-positive cells. We investigated whether endometrial transcriptomic profiling could identify a CE-associated molecular phenotype beyond conventional histopathological assessment and whether this phenotype was associated with reproductive outcomes after antibiotic treatment. ***Methods***: Peri-implantation endometrial samples from 43 patients with RIF were analyzed by bulk RNA sequencing; five H-CE-positive patients underwent repeat biopsy after antibiotic treatment, yielding 48 samples for transcriptomic analysis. Histopathological CE (H-CE) was defined as ≥5 CD138-positive cells in at least one high-power field. Principal component analysis (PCA) was performed to assess transcriptomic variation associated with progestogen exposure and CE-related findings. Cases with PC6 > 0 were subsequently defined as expression-based CE (E-CE). The 32 patients in the reproductive outcome analysis comprised 10 H-CE-positive/E-CE-positive, 14 H-CE-negative/E-CE-positive, and 8 H-CE-negative/E-CE-negative patients. ***Results***: PC1 and PC2 predominantly reflected progestogen exposure, whereas PC6 showed the strongest correlation with CD138-positive cell counts. PC6 positivity was also associated with H-CE (P = 0.0016), hysteroscopic findings suggestive of CE (P = 0.045), and Ureaplasma positivity (P = 0.014). E-CE was characterized by distinct immune-, stromal-, and endocrine-related gene expression. Among the 43 patients, 26 were classified as E-CE-positive, including all 10 H-CE-positive patients and 16 additional H-CE-negative patients. Among the 32 patients included in the reproductive outcome analysis, the H-CE-positive/E-CE-positive, H-CE-negative/E-CE-positive, and H-CE-negative/E-CE-negative groups comprised 10, 14, and 8 patients, respectively. The clinical pregnancy rate was significantly higher in H-CE-negative/E-CE-positive than in H-CE-negative/E-CE-negative patients (11/14 [78.6%] vs 1/8 [12.5%]; P = 0.006), whereas reproductive outcomes did not significantly differ between H-CE-positive/E-CE-positive and H-CE-negative/E-CE-positive patients. ***Conclusion***: Transcriptomic profiling identified an expression-based CE phenotype extending beyond conventional CD138-based histopathology. E-CE was associated with CE-related histopathological, hysteroscopic, and microbiological findings and with reproductive outcomes after antibiotic treatment. E-CE may identify clinically relevant CE-associated endometrial abnormalities in RIF patients not diagnosed by conventional histopathology. Prospective studies are required to validate its diagnostic and therapeutic utility.

Figure



REAL-TIME TRANSVAGINAL ULTRASOUND-GUIDED MICROWAVE ABLATION (RT-TVUS-MWFA) OF UTERINE FIBROIDS USING THE LOW-ENERGY MULTIPLE OVERLAPPING ABLATION (LEMOA) TECHNIQUE: VOLUMETRIC, SYMPTOMATIC, AND QUALITY-OF-LIFE OUTCOMES FROM A RETROSPECTIVE SINGLE-CENTER EXPERIENCE

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Problem statement: Real-time transvaginal ultrasound-guided microwave fibroid ablation (RT-TVUS-MWFA) is a minimally invasive, uterus-preserving treatment for symptomatic uterine fibroids (UFs). We evaluated longitudinal volumetric, symptomatic, and quality-of-life outcomes following RT-TVUS-MWFA performed using the Low-Energy Multiple Overlapping Ablation (LEMOA) technique, which employs multiple overlapping low-energy microwave applications. ***Methods***: This retrospective single-center study included 66 women with 90 treated UFs undergoing RT-TVUS-MWFA using the LEMOA technique. UF volumes were assessed at baseline, immediately after ablation, and at approximately 40 days, 3 months, and 6 months. Volume reduction rate (VRR) was calculated from paired measurements as [(baseline volume − follow-up volume)/baseline volume] ×100. Volumetric data are presented as median and interquartile range (IQR). Symptom Severity Score (SSS) and Uterine Fibroid Symptom and Quality of Life (UFS-QoL) scores were also assessed at baseline and 3 months in the first 38 women that had the procedure. Peri- and post-procedural complications and procedural parameters, including ablation time, ablation hits, and cumulative energy delivery, were recorded. ***Results***: Baseline volume was available for 86 UFs in 63 women, with a median of 6.76 mL (IQR 2.17–19.28). Immediately post-ablation, 83 UFs had a median volume of 3.88 mL (IQR 1.11–15.92) and paired VRR of 33.71% (IQR 21.12–51.34; p<0.001 vs baseline). At 40 days, 62 UFs had a median volume of 1.64 mL (IQR 0.63–9.72) and VRR of 67.50% (IQR 53.23–80.40; p<0.001); at 3 months, 47 UFs, 1.45 mL (IQR 0.24–10.14) and 74.40% (IQR 58.70–90.36; p<0.001); and at 6 months, 27 UFs, 1.78 mL (IQR 0.26–4.92) and 85.97% (IQR 72.07–93.56; p<0.001). In the 38-woman clinical subgroup, mean SSS decreased from 42.76±22.96 to 13.32±11.65 and UFS-QoL from 34.98±28.70 to 9.06±10.52 at 3 months (both p<0.001). No peri-procedural complications occurred. Ablation time and energy delivery correlated strongly with fibroid size (ρ=0.753), while VRR was inversely correlated with fibroid size and procedural parameters (ρ=-0.706, p<0.001). ***Conclusion***: RT-TVUS-MWFA using the LEMOA technique achieved substantial and progressive UF shrinkage through 6 months, accompanied by significant symptomatic and quality-of-life improvement. These findings support LEMOA-based RT-TVUS-MWFA as a promising minimally invasive, uterus-preserving treatment for symptomatic UFs.

MATERNAL KIR HAPLOTYPE DISTRIBUTION ACROSS INFERTILITY PHENOTYPES IN A REPRODUCTIVE IMMUNOLOGY REFERRAL COHORT

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Problem statement: Maternal killer-cell immunoglobulin-like receptors (KIR) regulate uterine natural killer cell responses through interaction with trophoblast human leukocyte antigen C (HLA-C), a plausible pathway for implantation and placentation effects. Published associations with infertility and pregnancy loss are inconsistent, frequently underpowered and clinically heterogeneous, and current guidelines do not support KIR/HLA-C testing for routine decision-making. We asked whether maternal KIR haplotypes differ across infertility phenotypes in women referred for reproductive immunology assessment. ***Methods***: Retrospective cross-sectional analysis of a reproductive immunology referral database (N=381). Women were classified as recurrent implantation failure (RIF), primary infertility, secondary infertility or recurrent pregnancy loss (RPL). Maternal KIR haplotypes were coded AA/AB/BB/BX and female HLA-C groups as C1C1/C1C2/C2C2. Analyses used complete cases (haplotype N=378; phenotype plus haplotype N=376; HLA-C N=352). Haplotype distributions were compared across phenotypes by chi-square with Monte Carlo simulation; standardized residuals identified the cells contributing most to the global association and are reported descriptively. HLA-C distributions were compared by chi-square/Fisher tests. ***Results***: Overall haplotype frequencies were AA 29.4% (111), AB 37.0% (140), BB 8.2% (31) and BX 25.4% (96). Distribution differed across phenotypes (Monte Carlo p=0.014). AA was 35.6% in RIF (16/45) versus 24.2% in primary infertility (39/161), and BX reached 38.4% in RPL (28/73). The largest standardized residuals indicated AB enrichment in primary infertility (75 observed vs 59.1 expected), AB depletion in RPL (15 vs 26.8) and BX enrichment in RPL (28 vs 18.6); expected counts were small in some cells. Female HLA-C distribution was C1C2 51.1%, C1C1 34.4% and C2C2 14.5%, without differences across phenotypes (p=0.80). ***Conclusion***: In a comparatively large referral cohort, maternal KIR haplotypes showed phenotype-specific variation of small effect size, whereas female HLA-C did not. This supports pre-specified stratification by clinical indication in future KIR/HLA-C research. Limitations include the absence of fertile controls, clinically defined and potentially heterogeneous phenotypes, and unavailable paternal/fetal HLA-C and pregnancy outcome endpoints, which restrict mechanistic inference. These baseline frequencies can inform adequately powered, outcome-focused studies integrating ligand context and standardized phenotype definitions.
Disclosure of interest: *None declared*

OTHER

COMPARATIVE ASSESSMENT OF THE ANTIOXIDANT AND CYTOPROTECTIVE ACTIVITY OF FOUR COMMERCIAL INOSITOL-BASED FOOD SUPPLEMENTS IN AN ENDOMETRIAL CELL MODEL

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Oxidative stress contributes to impaired oocyte quality and reduced fertility, particularly in women of advanced age or with metabolic dysfunctions. Natural antioxidant supplementation has therefore been investigated as a strategy to counteract oxidative damage and support reproductive health. Myo-inositol (MYO) and D-chiro-inositol (DCI), insulin-sensitizing stereoisomers involved in ovarian function, may also contribute to antioxidant activity. This study aimed to evaluate the in vitro antioxidant and cytoprotective capacity of four commercially available multi-ingredient formulations marketed in Spain, containing inositols, antioxidants and probiotics, and to determine whether their combined composition results in measurable antioxidant activity. Human endometrial microvascular endothelial cells (HEMEC) were used as an in vitro model. Cytotoxicity was assessed by MTT assay, followed by evaluation of intracellular reactive oxygen species (ROS) using H2DFFDA assay. Four commercially available formulations were compared: Ovosicare® Fertility (MYO:DCI 3.6:1; 1100:300 mg + antioxidants), Ovosicare® ProFIV (same MYO:DCI ratio and antioxidants + probiotics and CoQ10), Seidivid® Ferty 4 (MYO:DCI 40:1 1100:27.6 mg + antioxidants, probiotics and CoQ10), and Ovusitol® D (4000 mg MYO + antioxidants, probiotics). Oxidative stress was induced with tert-butyl hydroperoxide (tBHP, 250 µM). Probiotic-containing formulations were co-incubated with tBHP for 4 hours, while the others were pre-incubated for 24 or 48 hours before oxidative stress induction. Ascorbic acid (10 µg/mL) was used as positive control. Ovosicare® ProFIV reduced ROS by 45.2% following 4-hour co-incubation with oxidative insult (p<0.001), while Ovosicare® Fertility reduced ROS by 36.7% following 24/48-hour pre-incubation with insult (p<0.001). Neither Seidivid® Ferty 4 nor Ovusitol® D showed significant antioxidant activity at any concentration tested. Among individual ingredients, pomegranate extract (Pomanox®) produced the greatest reduction in ROS (89.9%), exceeding that of the reference antioxidant. The 3.6:1 MYO:DCI combination significantly reduced ROS by 33.8%, whereas the 40:1 ratio showed no significant effect. Overall, both

Ovosicare® formulations demonstrated significant antioxidant activity in the HEMEC model, distinguishing them from the other commercial formulations. These findings suggest that Pomanox® and the specific 3.6:1 MYO:DCI ratio may be key drivers of the antioxidant activity observed with Ovosicare® formulations, supporting their potential relevance for antioxidant supplementation in female fertility, although clinical confirmation is warranted.

HEALTH STATUS OF CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: FINDINGS FROM THE FIRST CENTRAL ASIAN PROSPECTIVE CASE–CONTROL STUDY

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Problem statement: More than 13 million children have been born worldwide following assisted reproductive technologies (ART), including over 46,000 in Kazakhstan. Despite the growing number of ART-conceived children, evidence regarding their long-term health remains inconsistent. This study aimed to evaluate the health status of ART-conceived children in Kazakhstan, with a particular focus on immune function, endocrine profile, and psychomotor development. ***Methods***: This prospective case–control study included 252 children under five years of age: 120 conceived through IVF/ICSI and 132 naturally conceived controls. Eligible participants were born between 2017 and 2022 following singleton or multiple IVF/ICSI pregnancies. Donor oocyte cycles, surrogacy, and intrauterine insemination pregnancies were excluded. Comprehensive assessment included medical history, anthropometry, immune profiling (CD3, CD4, CD8, CD16, CD20, CD25, CD95, HLA-DR expression, IgA, IgG, IgM), endocrine evaluation (TSH, T3, T4, insulin, IGF-1, growth hormone, glucose, sodium, potassium), neurosonography, and psychomotor development assessment. Statistical analyses were performed using IBM SPSS Statistics version 26. The study was supported by the Committee of Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan. ***Results***: Compared with naturally conceived children, the ART group demonstrated significantly higher rates of multiple pregnancy (OR=9.65), Caesarean delivery (OR=4.8), late preterm birth (34–36 weeks, p<0.001), and low birth weight (p=0.004). Immunological assessment revealed significantly lower IgG (p<0.001) and IgA (p=0.001) concentrations, lymphocytosis (p<0.001), and increased T-helper cell levels (p=0.004). ART-conceived children also showed earlier motor development (p=0.015), while the likelihood of immature brain structures detected by neurosonography was higher (OR=2.75). **i**: This first prospective Central Asian study demonstrates that the main health differences observed among ART-conceived children are primarily associated with perinatal factors, including multiple pregnancy and prematurity, rather than the mode of conception itself. Nevertheless, distinct immunological characteristics were identified, supporting the need for long-term follow-up and targeted monitoring of immune function in this population.

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ORAL PRESENTATION SESSION 08:
GYNECOLOGY: GYNECOLOGY

PREDICTING ADNEXAL TORSION USING A PREOPERATIVE PREDICTIVE SCORE AT A TERTIARY HOSPITAL IN DAVAO CITY: A PROSPECTIVE STUDY

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Problem statement: Adnexal torsion is a gynecologic emergency described as partial or complete twisting of the adnexal structures eventually leading to impaired blood flow and necrosis. It commonly affects women of reproductive age presenting with acute pelvic pain and non-specific clinical features which pose a diagnostic challenge. Surgical intervention remains the definitive diagnostic and treatment approach. Delays in management result in complications leading to loss of ovarian function. To address the lack of reliable non-invasive tool, a preoperative scoring system based on clinical and sonographic findings seeking to aid in risk stratification preventing diagnostic delay was analysed. Thus, this study aims to determine whether a preoperative diagnostic scoring tool can be used to accurately diagnose and stratify patients suspected of adnexal torsion. ***Methods***: This prospective cohort study was conducted at SPMC-IWNH from January to August 2025. Ethical approval and informed consent were obtained prior to participation in the study. A total of 35 participants purposively sampled presenting with acute pelvic pain and suspected cases of torsion were enrolled. Clinical and sonographic data were collected and assessed using the preoperative diagnostic tool. The diagnostic accuracy was analysed through sensitivity, specificity, predictive values and likelihood ratios. ***Results***: Among 35 participants, the majority were of reproductive age and presented with non-specific abdominal pain. Surgical intervention confirmed 16 cases of torsion. The scoring tool demonstrated high diagnostic accuracy, with 90% sensitivity, 78% specificity, and strong predictive values particularly in the high-risk category. These findings support its utility in stratifying risk and guiding timely surgical treatment. Limited sample size highlights the need for further validation. ***Conclusion***: The preoperative scoring tool showed a high sensitivity and specificity in identifying adnexal torsion among women supporting its importance as a practical adjunct in risk stratification and timely surgical intervention.

Disclosure of interest: *The authors declare no conflict of interest.*

ARTIFICIAL INTELLIGENCE-ASSISTED LAPAROSCOPIC RECOGNITION OF ENDOMETRIOSIS: A SYSTEMATIC REVIEW OF EARLY EVIDENCE, TRANSLATIONAL BARRIERS AND FUTURE SURGICAL DECISION SUPPORT

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Background: Endometriosis affects roughly one in nine women and people assigned female at birth, yet diagnosis is often delayed for years. Laparoscopy remains central to treatment and, in selected cases, histological confirmation, but intraoperative recognition is difficult and surgeon-dependent because lesions are visually heterogeneous and often subtle, deep or anatomically concealed. ***Objective***: To systematically review the evidence on artificial intelligence (AI)-assisted laparoscopic recognition of endometriosis, spanning lesion detection, classification, segmentation, mapping, documentation and surgeon-supervised decision support. ***Methods***: Following PRISMA 2020 (PROSPERO CRD420261433398), an information specialist searched CINAHL, the Cochrane Library, MEDLINE (Ovid), Embase (Ovid), arXiv and medRxiv to 25 June 2026, with citation searching. A supplementary engineering/computer-science search of IEEE Xplore, ACM Digital Library, Scopus, Web of Science and Google Scholar was performed before submission. Eligible studies applied computer vision or machine learning to laparoscopic, endoscopic or surgical-video data in endometriosis. Screening and data extraction were in duplicate; risk of bias used QUADAS-2 with QUADAS-AI considerations; evidence was synthesised narratively with GRADE-informed certainty. Protocol deviations are reported. ***Results***: Of 505 records identified, 364 were screened after duplicate/ineligible removal, and eight studies were included: five peer-reviewed primary studies and three datasets/preprints (emerging evidence). A multicentre YOLOv5 detector recognised nine phenotypes in surgical video, performing well for black, subtle and ovarian chocolate-fluid classes (F1 0.74-0.94) but weakly for red, white and filmy-adhesion classes (F1 0.02-0.25); a single-centre U-Net segmented bowel during deep-endometriosis resection (Dice approximately 0.96); and object detectors (Faster R-CNN, YOLOv9) showed high precision (approximately 0.98) but modest recall (approximately 0.71). All five peer-reviewed studies were internally validated, used surgeon-defined visual ground truth without histological confirmation, and were at high risk of bias; certainty was very low. ***Conclusions***: AI-assisted laparoscopic recognition of endometriosis is technically feasible but immature. Its credible near-term role is surgeon-supervised support-standardising inspection and documentation-rather than autonomous diagnosis. Multicentre annotated video repositories, standardised lesion taxonomy, histology-linked ground truth, external validation and prospective clinical-impact trials are required before adoption.

Registered in PROSPERO: CRD420261433398 (25 June 2026).

EVALUATION OF OBSTETRIC VIOLENCE PERCEPTION AND BIRTH TRAUMA IN WOMEN WITH VAGINAL DELIVERY

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Problem statement: Obstetric violence has been defined as interference by healthcare personnel with women`s bodies and reproductive processes, inhumane treatment, misuse of medicalization, and non-application of natural processes. The birthing experience can be upsetting and traumatic for many women. A traumatic birth negatively affects the woman, her baby, and her family. A woman who feels disappointed and lost due to childbirth may have an experience that is contrary to her expectations. Viewing childbirth as a traumatic experience negatively impacts not only the birthing process but also the postpartum period. The research was conducted to assess the perception of obstetric violence and childbirth trauma in women who gave undergone vaginal delivery. ***Methods***: The research was conducted as a descriptive study. The research was conducted with 300 puerperal women (150 primiparous, 150 multiparous) who applied to Ağrı Training and Research Hospital in the city center affiliated with Ağrı Provincial Health Directorate between December 2023 and December 2024. The research data were collected through face-to-face interviews using the Personal Information Form, the obstetric violence perception scale, and the Birth-Related Trauma Perception Scale (BRTPS). In the evaluation of the data, frequency, percentage, mean, t-test, analysis of variance, and Pearson correlation analysis were used. ***Results***: It was found that women who had vaginal births had negative perceptions of obstetric violence. As the total score on the Obstetric Violence Perception Scale increased, the total score on the Birth Trauma Perception Scale also increased. There is a statistically significant, positive, and weak relationship between the subscale scores of pre-pregnancy, pregnancy, labor, and postpartum, and the total score of the obstetric violence perception scale and the total score of the Birth Related Trauma Perception Scale ($p<0.05$). ***Conclusion***: As the likelihood of puerperal women experiencing obstetric violence increases, their trauma related to childbirth also increases.

Keywords: *Birth, midwife, puerperium, obstetric violence, trauma*
Funding: *This presentation was supported by TÜBİTAK under the 2224-A Support Program for Participation in Scientific Events Abroad.*

PREVALENCE OF DYSMENORRHEA AND ITS IMPACT ON THE MILITARY PERFORMANCE AMONG FEMALE FOURTH CLASS CADETS AT A MILITARY INSTITUTION DURING THE ACADEMIC YEAR JANUARY 2022 TO DECEMBER 2024

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Problem statement: Dysmenorrhea, characterized by lower abdominal pain during menstruation, poses a unique challenge affecting physical and mental performance in a highly demanding military environment. This study aimed to determine the prevalence of dysmenorrhea among fourth class cadets and assessed its impact on military performance from January 2022 to December 2024. ***Methods***: Descriptive correlational cross-sectional study was conducted among 100 female fourth class cadets. Data were collected using the World Endometriosis Research Foundation Endometriosis Phenome and Biobanking Harmonisation Project (WERF EPHect) Questionnaire, the Short Form-36 (SF-36) Questionnaire, and their overall Physical Fitness Test (PFT) evaluation. Descriptive and inferential statistics were analyzed using JAMOVI, significance level ($\alpha = 0.05$). ***Results***: Dysmenorrhea was reported by 53% of the respondents during military training. Despite no absenteeism, respondents with dysmenorrhea reported difficulty during training. Strong positive correlations were observed between menstrual pain severity by the WERF EPHect and SF-36 pain-related domains. Dysmenorrhea does not suppress overall achievement but as it increase, their overall Physical Fitness Test (PFT) tends to decrease. ***Conclusion***: This concludes that women who meet strict physical and mental fitness standards are not exempted from its effects. Dysmenorrhea did not translate into formal academic failure nor grounds for disqualification but it can mask the reality that majority of them described genuine difficulty carrying out training tasks while in pain. The most concerning finding was the near-absence of health-seeking behavior, driven largely by culture that frames menstrual pain as something to be tolerated and by institutional norms that may penalize those who seek clinic visits.

There are no conflicts of interest, and the author has no financial, personal, professional, or institutional relationships that could be perceived as influencing the work reported in this study. All research activities were conducted objectively and in accordance with ethical research standards.

DOES OVULATION PROMOTE ENDOMETRIOSIS? FOLLICULAR FLUID IL-8 DRIVES CXCR1/2-DEPENDENT CHEMOTAXIS OF ENDOMETRIOTIC CELLS

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Problem statement: Endometriosis is a chronic inflammatory disease whose pathogenesis is strongly influenced by the peritoneal microenvironment. Follicular fluid (FF), released into the peritoneal cavity during ovulation, contains cytokines and growth factors that may affect ectopic endometriotic cells. We investigated whether FF, particularly interleukin-8 (IL-8), modulates viability, migration and epithelial–mesenchymal transition of endometriotic cells. ***Methods***: FF obtained from 18 women undergoing in vitro fertilization for male-factor infertility was randomly combined into three pools of six donors each. Epithelial-like endometriotic 12Z cells were exposed to different FF concentrations. Cell viability was assessed by MTT assay and migration using Boyden chambers. IL-8 was investigated as a chemoattractant, and its functional relevance was tested by inhibition of its receptors CXCR1 and CXCR2 with reparixin. Receptor expression was assessed by flow cytometry and E-cadherin/N-cadherin by immunocytochemistry. ***Results***: IL-8 concentrations were elevated in all FF pools (178.3–219.8 pg/mL) and exceeded serum reference concentrations more than threefold. FF significantly affected 12Z-cell viability, with prominent increases at 50% FF after 24 hours. FF used as a chemoattractant induced substantial migration, with the strongest response to FF1. IL-8 itself induced concentration-dependent chemotaxis. Reparixin reduced IL-8-induced migration by up to 40% ($p=0.046$) and significantly reduced migration toward FF1, FF2 and FF3 by 33% ($p=0.012$), 52% ($p=0.040$) and approximately 62% ($p=0.023$), respectively. FF exposure upregulated CXCR1 and CXCR2, particularly CXCR1, and altered E-cadherin and N-cadherin expression, compatible with a hybrid epithelial–mesenchymal phenotype. ***Conclusion***: Follicular fluid represents a biologically active component of the peritoneal microenvironment that promotes endometriotic cell viability and directed migration. IL-8/CXCR1/2 signaling is a major mediator of this chemotactic effect and may represent a mechanistic link between ovulation-associated FF exposure and endometriosis lesion establishment or progression.

Disclosure of interest: *None declared.*

MENOPAUSAL BRAIN FOG AND QUALITY OF LIFE: A COMPARATIVE STUDY OF EARLY AND LATE POSTMENOPAUSAL WOMEN

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Problem statement: Cognitive complaints, often described as “brain fog,” are common during menopause and may negatively affect quality of life (QoL). These symptoms include forgetfulness, difficulty concentrating, and mental fatigue, and are thought to be associated with hormonal changes during the postmenopausal period. However, it remains unclear whether the time elapsed since menopause influences the severity of brain fog or its relationship with menopause-specific QoL. This study aimed to examine whether menopausal stage, defined by STRAW+10 criteria, is associated with brain fog severity and to compare menopause-specific QoL between early and late postmenopausal women. ***Methods***: This cross-sectional descriptive study included 122 naturally postmenopausal women aged 40–65 years. Participants were categorized according to STRAW+10 criteria into early postmenopause (1–2 years since the last menstrual period, n=62) and late postmenopause (≥3 years, n=60). Data were collected using a Sociodemographic Information Form, the Brain Fog Scale (BFS), and the Menopause-Specific Quality of Life Questionnaire

(MENQOL). Group comparisons and correlation analyses were performed. The study was registered at ClinicalTrials.gov (Identifier: NCT06978218). ***Results***: No significant differences were observed between early and late postmenopausal women in total BFS or MENQOL scores. However, women in the early postmenopausal stage reported experiencing brain fog symptoms more frequently compared with those in the late postmenopausal stage. In the late postmenopausal group, educational level was significantly associated with brain fog severity, with women with higher educational attainment reporting lower cognitive complaint scores ($p=0.006$). Furthermore, strong and statistically significant positive correlations were identified between total brain fog scores and menopause-specific QoL scores in both groups (early postmenopause: $r=0.72$; late postmenopause: $r=0.73$; $p<0.001$). ***Conclusion***: The severity of brain fog symptoms in postmenopausal women appears to be strongly associated with menopause-specific quality of life, regardless of the duration since menopause. Although no substantial differences were observed between menopausal stages, individual characteristics such as educational level may influence the perception and severity of cognitive complaints. These findings highlight the importance of routinely assessing cognitive symptoms in menopausal care and considering individual factors when planning supportive interventions to improve women's quality of life.

VAGINAL MICROBIOME AWARENESS: 2026 RESULTS FROM THE INTERNATIONAL MICROBIOTA OBSERVATORY IN 11 COUNTRIES

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Problem statement: The International Microbiota Observatory aims to assess awareness, knowledge, and behaviors related to the human microbiome worldwide, with a focus on the vaginal microbiome. The 2026 edition continues to track the evolution of these indicators across a broader population sample. ***Methods***: For the fourth year running, the Biocodex Microbiota Institute has commissioned Ipsos bva to conduct an international survey on microbiota. This survey was conducted online, from February 3rd to March 13th, 2026, by Ipsos bva among 7,500 people in 11 countries (the USA, Brazil, Mexico, France, Germany, Italy, Portugal, Poland, Finland, China and Vietnam). Quota sampling ensured balance by gender, age, employment status, and region. This abstract focuses on data from 3,862 women who responded to a dedicated module on the vaginal microbiome. ***Results***: In 2026, awareness of the term "vaginal microbiome" continued to rise, with 56% of women reporting they had heard of it (+2 pts vs 2025), yet only 23% say they know exactly what it means. Knowledge remains limited, with only 5.8/11 questions answered correctly on average. Misconceptions persist: only 50% recognize that smoking affects the vaginal microbiome, 45% know the gut microbiome influences it, and just 21% are aware of the protective role of oestro-progestative pills. Healthcare professional guidance remains insufficient: only 30% received all key information at least once, falling to 20% among women aged 60 and over. Despite this, 86% want more information from HCPs. Protective behaviors are unevenly adopted: 74% regularly wear cotton underwear, while only 56% avoid vaginal douching and 32% sleep without underwear. Younger women report greater awareness and more HCP guidance, yet they are also less likely to adopt several microbiome-friendly hygiene behaviors consistently. ***Conclusion***: Despite growing awareness since 2023, significant knowledge and behavioral gaps remain. For the first time, the 2026 edition reveals a decline in several knowledge and HCP-guidance indicators, suggesting that progress cannot be taken for granted. With 86% of women requesting more information about the vaginal microbiome and its impact on health, integrating evidence-based vaginal microbiome education and practical guidance into clinical practice is increasingly urgent.

INNOVATIONS IN MENOPAUSE CARE: POPULATION INSIGHTS AND A NOVEL DIGITAL MENOPAUSE CONSULTATION SERVICE

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Problem statement: Menopause significantly affects women's physical, emotional, social, and occupational functioning, yet remains insufficiently addressed in clinical practice and workplace policy. Sector-based differences in culture, health literacy, and access to care shape how women experience and report symptoms. This study examines menopause-related symptoms, functioning, information-seeking, help-seeking, and workplace needs among women from the strict-orthodox, Arab, and General sectors in Israel. In parallel, it evaluates a national digital innovation: an online menopause-expert consultation service launched by Israel's largest HMO, providing approximately 350 consultations per month with over 90% user satisfaction. ***Methods***: A cross-sectional survey was conducted among 1,639 women aged 45–60: strict-orthodox (n=83), Arab (n=438), and General (n=1,118). The questionnaire assessed symptom prevalence, number of symptoms per woman, functioning across daily, social, sexual, and occupational domains, information sources, help-seeking behavior, and workplace adjustments. Descriptive statistics and chi-square tests were used to identify sector differences. Usage and satisfaction data from the HMO's menopause-expert video consultation service were analyzed to contextualize emerging digital care patterns. ***Results***: Arab women reported the highest symptom burden (median seven symptoms), followed by the General sector (six) and the strict-orthodox sector (five). Symptoms such as joint/muscle pain, mood changes, anxiety, and dizziness were significantly more prevalent in the Arab sector. All functioning domains showed significant sector differences ($p < 0.05$), with Arab women reporting weaker functioning and strict-orthodox women reporting stronger functioning. Information-seeking was dominated by non-medical sources, and help-seeking from healthcare providers was low across all sectors. Workplace needs were consistent, with high demand for flexible hours, remote work, and temperature control. In contrast, the digital consultation service demonstrated strong engagement and exceptionally high satisfaction (>90%), suggesting that accessible expert support may help bridge gaps identified in the survey. ***Conclusion***: Sector-specific disparities in menopause experiences highlight the need for targeted education, proactive clinical engagement, and supportive workplace policies. The high uptake and satisfaction of the digital menopause consultation service demonstrate a scalable solution that can reduce barriers, improve access to expert care, and enhance women's quality of life across all sectors.

ORAL PRESENTATION SESSION 09:
GYNECOLOGY: HPV | GYNECOLOGY

HPV

EXPERT COLPOSCOPY WITH STANDARDIZED RADIO-WAVE LOOP EXCISION IN THE DIAGNOSIS OF HIGH -GRADE CERVICAL LESIONS IN YOUNG NULLIPAROUS WOMEN

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Problem statement: Early detection of high-grade squamous intraepithelial lesions (HSIL) in young women remains challenging because cervical cytology and human papillomavirus (HPV) testing may fail to identify clinically significant disease. Expert colposcopy, followed by standardized histopathological confirmation, may improve diagnostic accuracy. The aim of this study was to evaluate the diagnostic pathway of expert colposcopy with standardized radio-wave loop excision (RWLE) in young nulliparous women managed at a tertiary referral colposcopy center. ***Methods***: A retrospective cohort study included 1,948 nulliparous women aged 18-30 years evaluated over a two-year period at a tertiary referral colposcopy center. All women underwent cervical cytology and expert colposcopy. HPV genotyping using a 36-genotype polymerase chain reaction assay was performed according to clinical indications. Women with colposcopic findings suspicious for HSIL underwent standardized radio-wave loop excision (RWLE), the routine excision technique at our institution, providing definitive histopathological diagnosis. Clinical, cytological, HPV, colposcopic, and histopathological findings were analyzed in women with

confirmed cervical intraepithelial neoplasia grade 2 or 3(CIN2/3). ***Results***: Histologically confirmed HSIL was identified in 96 women (4.9%). Abnormal colposcopic findings were present in very case. Negative cytology was observed in 65/96 women (67.7), while 19 women were HPV-negative, including 10 with both negative cytology and negative HPV testing. Dense acetowhite epithelium with coarse mosaicism predominated in women aged 18-24 years, whereas abnormal vascular patterns were more frequently observed in women aged 25-30 years. Standardized RWLE enabled definitive histopathological confirmation in all women included in the analysis. ***Conclusion***: The combination of expert colposcopy and standardized RWLE provided a reliable diagnostic pathway for definitive histopathological confirmation of HSIL in young nulliparous women. Abnormal colposcopic findings were consistently identified despite reassuring cytology and, in a subset of women, negative HPV testing. These findings support the value of expert colposcopy integrated with standardized RWLE in the diagnostic management of selected young women in a tertiary referral setting.

HPV INFECTION IN PREGNANCI: CONDYLOMAS, CERVICAL LESIONS AND OUTCOMES OF RADIO WAVW TREATMENT

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Problem statement: HPV infection during pregnancy may present as isolated condylomas, cervical lesions or combined disease. Data regarding the safety and efficacy or radio-wave treatment during pregnancy remain limited. ***Methods***: We retrospectively analyzed 120 pregnant women (18-48 years) with HPV – associated disease managed at a referral center. All patients underwent expert colposcopy. Condylomas were diagnosed during the first trimester in 67 women, the second trimester in 32 and the third trimester in 19. Forty-eight women presented with initial condylomas involving the labia minora and periurethral region ,31 had multifocal disease involving the vagina, labia minora, and pubic skin, and 8 had extensive condylomatosis affecting the vagina, perineum and anorectal region. Twenty -four women had condylomas associated with cervical lesions, while nine had abnormal colposcopy without clinically visible condylomas. Cervical interventions were performed between 12 and 32 weeks of gestation using radio-wave loop excision (RWLE). Initial condylomas were treated by radio-wave vaporization, whereas advanced forms required combined vaporization and excision. ***Results***: Histopathology revealed CIN 1, CIN 2, CIN 3, and carcinoma in situ. Three women with normal cytology had abnormal colposcopy and histologically confirmed CIN 3. Initial condylomas were successfully treated in all patient without recurrence. Recurrence occurred in 3% of women with developed condylomas after one month and in 7% and 3% of women with extensive disease after one and two months, respectively; all recurrences were successfully treated. All women treated with RWLE delivered vaginally at term. ***Conclusion***: HPV infection during pregnancy encompasses a broad spectrum of genital and cervical disease. Expert colposcopy enabled early identification of clinically significant cervical lesions, while radio-wave treatment achieved excellent therapeutic and obstetric outcomes.

POST-HYSTERECTOMY VAIN3 FOLLOWING ENDOMETRIAL CARCINOMA: A SUCCESSFUL APPROACH WITH CO_2 LASER

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Problem statement: High-grade vaginal intraepithelial neoplasia (VaIN3) is a rare but clinically relevant premalignant lesion, representing less than 2% of lower genital tract intraepithelial neoplasias and predominantly affecting postmenopausal women. It is strongly associated with persistent high-risk human papillomavirus (hrHPV) infection, particularly genotypes 16, 18, and 31, and may develop de novo or following hysterectomy for benign or malignant gynecologic disease. Post-hysterectomy VaIN poses diagnostic and therapeutic challenges due to anatomical changes, multifocality, and HPV-related field cancerization. Women with prior gynecologic malignancies have higher recurrence and progression rates, supporting the need for long-term surveillance. Conservative treatments, including CO_2 laser excision and vaporization, allow effective lesion control while preserving vaginal anatomy. ***Methods***: Clinical data, imaging, and photographic documentation were retrospectively collected from the patient's electronic medical record and follow-up evaluations. ***Results***: A woman in her sixties with a history of laparoscopic total hysterectomy and bilateral salpingo-oophorectomy for stage IA, grade 2 endometrioid endometrial carcinoma remained disease-free under regular oncologic follow-up. Vaginal cytology three months postoperatively revealed a low-grade squamous intraepithelial lesion, and biopsy confirmed VaIN2. Preoperative HPV status was unknown. The patient was asymptomatic and followed with periodic cytology, HPV testing, and colposcopy, which demonstrated persistent VaIN1–2 with sustained hrHPV positivity, later identified as genotype 31. Approximately six years after hysterectomy, colposcopy revealed new acetowhite, iodine-negative lesions involving the vaginal vault and upper vaginal wall. Directed biopsies confirmed high-grade squamous intraepithelial lesion (HSIL – VaIN3). Treatment with CO_2 laser excision and vaporization under local anesthesia was uneventful and well tolerated, with minimal bleeding. Histopathology confirmed complete excision of the lesion. ***Conclusion***: This case highlights the risk of late-onset high-grade VaIN in women previously treated for gynecologic malignancies, even in the absence of cervical disease. Persistent hrHPV infection, including non-16/18 genotypes such as HPV 31, may contribute to disease development years after hysterectomy. Long-term surveillance with cytology, HPV testing, and colposcopy is essential in selected high-risk patients. CO_2 laser therapy represents a safe, effective, and tissue-preserving treatment option with excellent tolerability.



EVALUATION OF HUMAN PAPILLOMA VIRUS (HPV) KNOWLEDGE, AWARENESS AND CONCERN LEVELS OF WOMEN IN REPRODUCTIVE AGE: A QUASI-EXPERIMENTAL STUDY

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Problem statement: This study aimed to examine the effect of HPV education on HPV-related knowledge, awareness, and anxiety among young adult women. ***Methods***: The study employed a quantitative, quasi-experimental design. A total of 230 university students in the young adult age group completed the pre-test. Following the pre-test, participants who agreed to receive the intervention were provided with HPV education delivered by expert educators. After the intervention, 180 participants completed the post-test. The first section of the data collection instrument consisted of a four-item participant information form including questions on age, educational status, employment status, and perceived financial status. The second section included the HPV Knowledge Scale, consisting of 33 items and four subdimensions, which was validated and found reliable in Turkish by Bozkurt and Özdemir (2023). The final section included the HPV Awareness and Anxiety Scale, consisting of 19 items and three subdimensions, developed by Esencan et al. (2023). The internal consistency coefficients of the scales ranged from 0.744 to 0.933, indicating acceptable to excellent reliability. Data analysis was conducted using the SPSS 27 software package. A dropout analysis revealed no significant demographic differences between participants who completed the post-test and those who did not, indicating the absence of attrition bias. ***Results***: The mean age of the participants who completed the pre-test was 21.14 ± 4.29 years, while the mean

age of those who completed both the pre- and post-tests was 21.04 ± 4.33 years. Comparisons of pre- and post-test scores demonstrated significant increases in HPV knowledge, knowledge of HPV testing, HPV vaccine knowledge, access to the HPV vaccine, and total HPV knowledge scores following the education ($p < 0.001$). Similarly, HPV awareness levels significantly increased after the intervention ($p < 0.001$). While health-related anxiety levels also showed a significant increase after the education ($p < 0.001$), no significant change was observed in anxiety related to social exclusion ($p > 0.05$). ***Conclusion***: In conclusion, HPV education was found to enhance HPV-related knowledge and awareness among young women and was also associated with an increase in health-related anxiety.

GYNECOLOGY

VAGINAL COLONIZATION WITH LACTOBACILLUS CRISPATUS ENHANCES GAMMA-DELTA T CELL AND NATURAL KILLER CELL FUNCTIONAL READINESS

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Problem statement: The vaginal microbiome is a key regulator of mucosal immune homeostasis. Lactobacillus crispatus is a dominant commensal species associated with vaginal eubiosis, low pH, and resistance to dysbiosis. However, its direct effects on vaginal immune-cell function remain incompletely characterized. In contrast, Staphylococcus aureus can act as an inflammatory pathobiont at mucosal surfaces. We aimed to determine how L. crispatus and S. aureus differentially shape vaginal mucosal immune responses in vivo. ***Methods***: Female mice were intravaginally inoculated with L. crispatus (LC), S. aureus (SA), or mock control six times over two weeks. Vaginal bacterial colonization was assessed by quantitative polymerase chain reaction (qPCR) using species-specific markers. Vaginal mucosal immune-cell populations and functional markers were analyzed by flow cytometry. Primary immune readouts included interleukin-17A (IL-17A) production in gamma-delta T cells, granzyme B (GzmB) expression in natural killer (NK) cells, neutrophil recruitment, and adaptive immune-cell alterations. ***Results***: LC-specific 16S ribosomal RNA (rRNA) expression was significantly increased in the LC-inoculated group compared with mock controls, confirming successful vaginal colonization. SA-associated bacterial signal showed an increasing trend but did not reach statistical significance because of marked inter-individual variability. LC inoculation did not broadly increase total gamma-delta T-cell or NK-cell frequencies. Instead, LC enhanced functional immune phenotypes, characterized by increased IL-17A-producing gamma-delta T cells and increased GzmB-expressing NK cells in the vaginal mucosa. In contrast, SA induced a distinct inflammatory immune pattern, with prominent neutrophil recruitment and reduction of adaptive immune-cell compartments. ***Conclusion***: Vaginal colonization with L. crispatus enhances functional mucosal immune readiness through IL-17A-producing gamma-delta T cells and GzmB-expressing NK cells, whereas S. aureus induces neutrophil-dominant inflammatory imbalance. These findings suggest that L. crispatus may act as an active immunomodulatory commensal, rather than merely a marker of vaginal eubiosis. Further studies are needed to validate whether these immune-cell pathways contribute to microbiome-based strategies for dysbiosis-related gynecologic conditions.

EMERGENCY CERCLAGE FOR BULGING MEMBRANE IN THE MIDTRIMESTER: TO STITCH OR NOT TO STITCH?

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Problem statement: Management of bulging fetal membranes in the midtrimester represents a major clinical dilemma. Pregnancies are often highly valued, with histories of infertility or recurrent miscarriage. Treatment options include pregnancy termination, expectant management, or emergency cerclage. The role of emergency cerclage remains controversial due to limited evidence and absence of randomized controlled trials. ***Methods***: We retrospectively reviewed 10 cases of emergency cerclage performed for bulging membranes between 1997–2015 at Yoseftal Hospital by a single surgeon. Patient evaluation included medical history, ultrasound, vaginal and urine cultures, and exclusion of intra-amniotic infection by amniocentesis when feasible. Management included antibiotics, Trendelenburg positioning, and at least 48 hours of observation before intervention. Informed consent and counseling regarding risks and alternatives were documented. ***Results***: All 11 women underwent successful cerclage placement. The mean gestational age at the time of procedure was 20 weeks (range 17–26). Prolongation of pregnancy ranged from 3 to 15 weeks, allowing for viable deliveries in 6 cases. Four pregnancies ended in miscarriage within 2 weeks of the procedure. No cases of maternal sepsis were recorded. Outcomes suggest that selected patients may benefit from cerclage in terms of pregnancy continuation and neonatal survival. Long term of follow-up without development problems. ***Conclusion***: Emergency cerclage for bulging membranes in the midtrimester remains a debated intervention. Our series demonstrates that, with careful patient selection, informed consent, and exclusion of infection, the procedure may prolong pregnancy and improve neonatal outcomes. On this further prospective studies are warranted to establish clear guidelines for clinical practice.

MATERNAL CHARACTERISTICS ASSOCIATED WITH SMALL FOR GESTATIONAL AGE INFANTS AMONG WOMEN WITH SUBCLINICAL HYPOTHYROIDISM IN EARLY PREGNANCY: A MULTICENTER PROSPECTIVE COHORT STUDY

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Background: Prior multicenter studies have linked first-trimester subclinical hypothyroidism (SCH) to an increased risk of small-for-gestational-age (SGA) infants, but the contributing maternal factors remain unclear. ***Objective***: This exploratory study aimed to identify maternal characteristics associated with SGA among women with early pregnancy SCH, generating hypotheses for future investigation. ***Methods***: Data were sourced from the China Birth Cohort Study (2018–2022). Among 125,365 pregnant women screened at 6–13^{+6} weeks, 4,335 with first-trimester SCH were included after strict eligibility criteria and institution-specific reference ranges. Binary logistic regression, adjusted for confounders selected via directed acyclic graph, examined associations between parental characteristics, neonatal outcomes, and SGA. Sensitivity analyses restricted to term births and comparisons of included versus excluded populations were performed. ***Results***: SGA occurred in 182 (4.2%) participants. Pre-pregnancy overweight/obesity (BMI ≥25 kg/m²) and multiparity were associated with lower SGA odds (OR=0.43, 95% CI: 0.23–0.83; OR=0.63, 95% CI: 0.45–0.87, respectively), while irregular menstrual cycles increased odds (OR=1.44, 95% CI: 1.03–2.03). Pet ownership showed a tentative association (OR=1.57, 95% CI: 1.07–2.31), but interpret with caution due to limited exposure data. Paternal factors and neonatal sex showed no significant links. Sensitivity analyses supported estimate robustness. ***Conclusion***: In women with first-trimester SCH, higher pre-pregnancy BMI and multiparity were linked to lower SGA odds, whereas irregular cycles were linked to higher odds. The pet ownership finding is hypothesis-generating only. Given the exploratory, single-cohort design, causal inference is unwarranted, and independent validation is needed before clinical application.

SESN2 SUPPRESSES FERROPTOSIS IN POLYCYSTIC OVARY SYNDROME BY MAINTAINING PRDX6 K209 LACTYLATION

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Polycystic ovary syndrome (PCOS) is a prevalent and heterogeneous endocrine-metabolic disorder affecting women of reproductive age, characterized by elevated androgen levels, disrupted ovulation, and polycystic ovarian changes. Increasing evidence indicates that oxidative stress and ferroptosis contribute to granulosa cell dysfunction and ovarian impairment in PCOS. In this study, we identified sestrin 2 (SESN2), a stress-inducible metabolic regulator, as a protective factor against ferroptosis in PCOS. Using both in vitro and in vivo PCOS models, we

demonstrate that SESN2 deficiency aggravates oxidative stress and ferroptosis in ovarian granulosa cells. Mechanistically, loss of SESN2 reduced the overall lactylation level of peroxiredoxin 6 (PRDX6) and was associated with decreased lactylation at the K209 site, a modification important for PRDX6-mediated redox homeostasis. Quantitative co-immunoprecipitation showed that PRDX6 interacted with GPX4, and this interaction was markedly weakened by K209R mutation. Consistently, re-expression of wild-type PRDX6, but not the K209R mutant, substantially attenuated SESN2 deficiency-induced oxidative stress and ferroptotic injury. Overall, these findings indicate that SESN2 suppresses ferroptosis in PCOS at least partly by maintaining PRDX6 K209 lactylation, highlighting the SESN2–PRDX6 pathway as a potential therapeutic target for PCOS.

FROM KELLY TO KIWI: CAN WE FIX SUI WITHOUT MESH? THE MAKARY KIWI STITCH - OLD STITCH, NEW TRICKS

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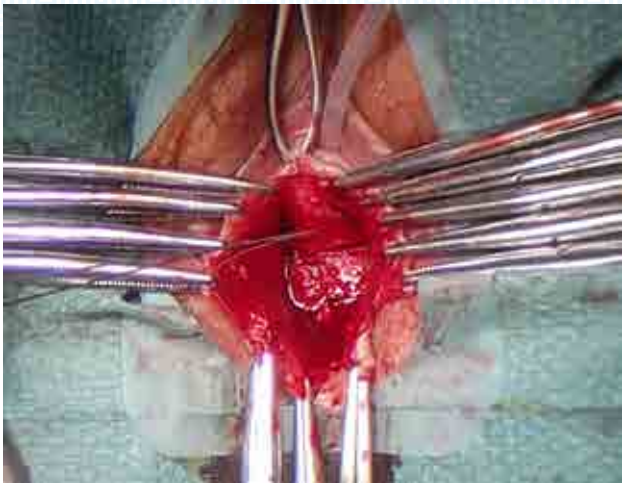
Problem statement: Stress urinary incontinence (SUI) is common, affecting up to 68% of women 20–26 years after childbirth. Surgical management has evolved from the Kelly stitch and Marshall–Marchetti–Krantz operation to the Burch colposuspension. Mid-urethral slings, particularly tension-free vaginal tape (TVT), became gold standard due to being minimally invasive and having favourable short-term outcomes, but fell out of favour due to mesh-related complications. The limitations of current surgical approaches highlight the need for a safe, durable, minimally-invasive mesh-free alternative. ***Methods***: The Makary Kiwi stitch combines principles of the Kelly stitch with modifications of the Marshall–Marchetti–Krantz procedure, Culposuspension procedures, and the slings procedures.

1. Anaesthesia and exposure: Xylocaine 1% with adrenaline is infiltrated into the vaginal skin lateral to the urethrovesical junction avoiding the midline. A 5 cm inverted T incision is made to the vaginal skin overlying the urethrovesical junction and mid-urethra.
2. Dissection: The vaginal tissue is dissected laterally and superiorly towards the pubic bone exposing the urethrovesical angle.
3. Suture placement and suspension: A 1-0 Ethibond suture is placed into soft tissues at the medial pelvic floor attachment, on the undersurface of the pubic bone, +/-2.5 cm lateral to the midline. A substantial bite is taken without bone penetration. The same suture is passed beneath the urethrovesical angle and an equivalent contralateral bite is taken.
4. Tensioning, closure, and drainage: Tension is adjusted to a loose configuration allowing easy passage of an artery forceps between suture and urethra. The suture is tied and the knot positioned laterally. The vagina is closed with interrupted horizontal mattress Vicryl sutures. A suprapubic catheter is placed.

Using this technique a retrospective audit was conducted at Bidwill Hospital from 01/02/2014 to 30/06/2026 with focus on short and long term outcomes prioritizing performance indicators outlined in the results.

Results: In 213 patients, none required transfusion, developed significant infection requiring hospitalisation, required suture removal, had persistent urinary retention, or sustained injuries. 0.5% developed stitch erosion and 1.4% developed vaginal adhesions.

Conclusion: The Makary Kiwi stitch demonstrates low complication rates and favourable outcomes. It represents a safe, durable, mesh-free alternative for SUI.



BENCH TO BEDSIDE, EXPANDED: SERUM MIRNA TESTING IDENTIFIES HISTOLOGICALLY CONFIRMED ADVANCED ENDOMETRIOSIS IN 458 SYMPTOMATIC WOMEN WITH NEGATIVE PELVIC IMAGING

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Problem statement: Endometriosis affects 10–15% of reproductive-aged women, yet diagnosis is delayed an average of 6.6 years and up to 11 years. Pelvic ultrasound and magnetic resonance imaging (MRI) miss superficial and adhesive disease, so a normal study is often taken to exclude endometriosis and defer laparoscopy. We evaluated a non-invasive serum microRNA (miRNA) test in precisely this population: symptomatic women whose imaging was negative. ***Methods***: We enrolled 458 women aged 18–49 with symptoms suggestive of endometriosis, no prior diagnosis, and negative or non-diagnostic preoperative ultrasound and/or MRI. Luteal-phase serum and plasma were collected before surgery, de-identified, and analyzed with the Heranova miRNA test. All subjects underwent laparoscopy with histologic confirmation and revised American Society for Reproductive Medicine (rASRM) staging. Test results were compared with final pathology, the diagnostic gold standard. ***Results***: Mean age was 36.8 years (standard deviation 8.0). Despite negative imaging, endometriosis was histologically confirmed in 215 of 458 women (46.9%), and disease was advanced in most: rASRM stage II in 20 (9.3%), stage III in 126 (58.6%), and stage IV in 69 (32.1%), with 195 of 215 (90.7%) stage III or IV. In the initial 206-patient derivation cohort, concordance between the preoperative miRNA test and final pathology was 90%. Dyspareunia (21.9% versus 9.5%, $p<0.001$) and abnormal uterine bleeding (60.9% versus 47.3%, $p=0.005$) were more frequent in confirmed disease, whereas pelvic pain did not discriminate (97.7% versus 97.5%). ***Conclusion***: Negative imaging does not exclude endometriosis: nearly half of these women had histologically confirmed disease and over 90% of it was stage III or IV. A luteal-phase serum miRNA test offers a non-invasive way to identify these patients and direct them to definitive laparoscopy rather than continued observation. Shifting triage from imaging to a validated biomarker could substantially shorten diagnostic delay and reduce the burden of undiagnosed advanced disease.

DIVERSE CLINICAL PRESENTATIONS AND DIAGNOSTIC CHALLENGES OF OHVIRA SYNDROME IN ADOLESCENTS: A CASE SERIES EMPHASIZING EARLY RECOGNITION AND MULTIDISCIPLINARY MANAGEMENT

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Background: Obstructed Hemivagina and Ipsilateral Renal Agenesis (OHVIRA) syndrome, or Herlyn-Werner-Wunderlich syndrome, is a rare congenital anomaly characterized by uterine didelphys, obstructed hemivagina, and ipsilateral renal agenesis. Though global incidence ranges from 0.1% to 3.8%, local data remain unavailable. Its heterogeneous presentations in

adolescence often lead to delayed diagnosis and preventable complications such as infection, endometriosis, and infertility. ***Objective*****:** To describe three adolescent cases of OHVIRA syndrome with distinct clinical presentations, emphasizing diagnostic challenges, the role of imaging, minimally invasive surgical management, and reproductive outcomes. ***Methods*****:** Three adolescents aged 12–18 years presented with varied symptoms—progressive dysmenorrhea, chronic purulent vaginal discharge, and acute urinary retention. Pelvic ultrasound, computed tomography, and magnetic resonance imaging confirmed uterine didelphys with an obstructed hemivagina and ipsilateral renal agenesis. All underwent vaginoscopic resection of the obstructing septum under spinal anesthesia followed by application of a modified polysaccharide anti-adhesive barrier on the resected mucosal surface. Postoperatively, Dienogest 2 mg daily was administered for three months to suppress menstruation and reduce recurrence risk.



Results**:** All patients experienced complete symptom resolution. At one-year follow-up, office vaginoscopy demonstrated a patent, non-stenotic vaginal canal with healed septal remnants. All patients reported regular, painless menstruation with no recurrence of prior symptoms. ***Conclusion*****:** OHVIRA syndrome is rare but not invisible. It should be considered in adolescents presenting with pelvic pain, discharge, or urinary retention, particularly when unilateral renal agenesis is identified. MRI remains the gold standard for diagnosis. Minimally invasive vaginoscopic septum resection, coupled with hormonal suppression, provides excellent functional and reproductive outcomes. Early recognition through multidisciplinary collaboration is essential to prevent long-term complications and preserve fertility.

ZURANOLONE IN PUERPERAL PSYCHOSIS: A NEW POSSIBILITY FOR TREATING POSTPARTUM PSYCHIATRIC DISORDERS

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Problem statement**:** Puerperal psychosis is a severe psychiatric emergency that may pose substantial risks to both the mother and the newborn. The marked neuroendocrine changes occurring after childbirth have been implicated in its pathophysiology, increasing interest in the role of neurosteroids. Zuranolone, a synthetic neuroactive steroid that acts as a positive allosteric modulator of gamma-aminobutyric acid type A (GABA-A) receptors, has been approved for the treatment of postpartum depression. Given its rapid onset of action and potentially shared neurobiological mechanisms, investigating its possible therapeutic role in puerperal psychosis is relevant. This review aimed to analyze the available evidence regarding the potential use of zuranolone and neurosteroids in puerperal psychosis, considering the therapeutic potential and limitations of current evidence. ***Methods*****:** An integrative literature review was conducted using PubMed/MEDLINE and the Virtual Health Library databases. The search included the terms “zuranolone,” “postpartum psychosis,” “puerperal psychosis,” “neurosteroids,” and related terms, used individually and in combination. Studies addressing neurosteroid use and its potential implications for the treatment of puerperal psychosis were considered. The guiding question was: “What evidence is currently available regarding the potential use of zuranolone and neurosteroids in the treatment of puerperal psychosis?” ***Results*****:** Current literature demonstrates growing interest in neurosteroid modulation of GABA-A receptors in postpartum psychiatric disorders. Zuranolone has demonstrated a rapid antidepressant effect and efficacy in postpartum depression. However, the pivotal clinical trials evaluating zuranolone focused on postpartum depression and excluded patients with active psychosis, preventing direct extrapolation of their findings to puerperal psychosis. Although neurosteroids have biological plausibility and potential therapeutic relevance, evidence regarding the efficacy and safety of zuranolone specifically for puerperal psychosis remains limited. Current findings therefore support the need for studies specifically designed to evaluate its role in this condition. ***Conclusion*****:** GABA-A receptor modulation represents a promising area of investigation in postpartum psychiatric disorders; however, current evidence is insufficient to recommend zuranolone for the treatment of puerperal psychosis. Dedicated clinical studies are required to establish its efficacy and safety in this specific population.

Disclosure of interest: *The authors declare no conflicts of interest.*

ORAL PRESENTATION SESSION 10:
ART/IVF/INFERTILITY: ANDROLOGY | EMBRYOLOGY

ANDROLOGY

DOES ULTRASOUND-DERIVED TESTICULAR VOLUME ADD PROGNOSTIC VALUE BEYOND SERUM FSH FOR FIRST-ATTEMPT SURGICAL SPERM RETRIEVAL?

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Problem statement: Surgical sperm retrieval is an option to biological fatherhood for men with azoospermia and cryptozoospermia, but success varies widely. We questioned if preoperative semen diagnosis, testicular volume and hormone ratios are predictive markers. ***Methods***: 80 patients attempting their first testicular sperm aspiration (TESA) or microdissection testicular sperm extraction (mTESE) in KK Women`s & Children`s Hospital (KKH) from 2019 to April 2026 were retrospectively studied. Outcome was successful sperm retrieval. Bilateral testicular volumes were determined using Lambert Formula and averaged. Logistic regression was adjusted for retrieval method. Entire semen sample was analysed for 60 patients. Skewed hormone ratios were $\log_2$-transformed, with odds ratios representing a two-fold increase. Model discrimination was assessed using area under the receiver operating characteristic curve (AUC), with 1,000 bootstrap samples for internal validation. ***Results***: 44/80 patients (55.0%) had successful retrieval: 29/48 after TESA and 15/32 after mTESE (p=0.259). Out of 60 patients with semen diagnosis, 29/52 azoospermic patients (55.8%) and 5/8 cryptozoospermic patients (62.5%; p=1.000) had successful retrieval. Cryptozoospermia was not independently associated with retrieval after adjustment for method and follicular-stimulating hormone (FSH) (adjusted OR 1.337, 95% CI 0.259–6.912; p=0.729). Patients with successful sperm retrieval had significantly lower median FSH [5.10 (IQR

3.00–8.28) versus 11.75 (IQR 6.73–23.95) IU/L; p<0.001]. Increased FSH was independently associated with decreased surgical sperm retrieval success (adjusted OR 0.87 per IU/L, 95% CI 0.81–0.95; p<0.001). Adding FSH to retrieval method improved model fit (p<0.001); apparent and optimism-corrected AUCs were 0.76 and 0.74, respectively. Testicular volume was associated with retrieval success (adjusted OR 1.21per mL, 95% CI 1.04–1.40; p=0.012) in 51 patients with scrotal ultrasound measurements. Volume was inversely correlated with FSH (ρ=−0.796; p<0.001), without adding significant predictive information beyond FSH (p=0.909). A twofold increase in Testosterone/Luteinizing Hormone (T/LH) was associated with 57% higher odds of successful retrieval, adjusted for semen diagnosis and retrieval method (adjusted OR 1.57, 95% CI 1.01–2.44; p=0.043) (Table 1). ***Conclusion***: Lower FSH and larger testicular volume were each associated with first-attempt retrieval success, but testicular volume added no independent prognostic information beyond FSH. Semen diagnosis was not independently predictive, and T/LH association requires external validation.

TABLE 1. ADJUSTED ASSOCIATIONS OF SEMEN DIAGNOSIS, FSH, TESTICULAR VOLUME AND EXPLORATORY HORMONE RATIOS WITH SUCCESSFUL SPERM RETRIEVAL

Analysis and Predictor	n	Adjusted OR (95% CI)	P value	AIC	AUC
Primary: FSH, per 1 IU/L increase[a]	85	0.87 (0.81–0.95)	<0.001	94.98	0.76
Ultrasound: volume, per 1 mL increase[a]	51	1.21 (1.04–1.40)	0.012	65.57	0.74
Combined: FSH per 1 IU/L increase[b]	51	0.80 (0.67–0.97)	0.022	55.69	0.89
Combined: volume per 1 mL increase[b]	51	1.21 (0.94–1.23)	0.999	54.69	0.89
Cryptozoospermia versus azoospermia[c]	60	1.34 (0.26–6.91)	0.729	79.19	0.71
Exploratory comparator: FSH, per 1 IU/L[c]	60	0.90 (0.83–0.97)	0.009	79.19	0.71
Exploratory: T:FSH, OR for a two-fold increase[c,d]	60	1.36 (0.96–2.04)	0.088	80.04	0.68
Exploratory: T:LH, OR for a two-fold increase[c,d]	60	1.57 (1.01–2.44)	0.043	80.24	0.70
Exploratory: FSH:LH, OR for a two-fold increase[c,d]	60	1.31 (0.86–2.00)	0.641	80.33	0.69

[a]Adjusted for retrieval method.
[b]The combined model contained FSH and mean bilateral testicular volume simultaneously.
[c]Each exploratory ratio was evaluated in a separate model adjusted for retrieval method and semen diagnosis.
[d]The OR represents a two-fold increase—for example, a ratio increasing from 2 to 4—not a one-unit increase.
AIC values are compared only between models fitted to the same patient sample.

Abbreviations:
FSH, follicle-stimulating hormone; LH, luteinizing hormone; T, testosterone; CI, confidence interval; OR, odds ratio; AIC, Akaike Information Criterion; AUC, area under the receiver-operating-characteristic curve.

EFFECTS OF OXIDATIVE STRESS IN SPERM

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Problem statement: Oxidative stress (OS) is an important pathophysiological mechanism contributing to male infertility. The present study aimed to investigate the sperm parameters affected by oxidative stress in infertile couples and whether other mechanisms besides DNA fragmentation are implicated in the impairment of spermiogenesis. ***Methods***: In the present study, 161 men from infertile couples were included. The sperm analysis was performed according to the sixth edition of the WHO manual for the examination of semen. The oxidative status was measured with the Mioxsys technology, which provides an integrated measure of the overall balance between oxidative and reductive processes (static oxidation-reduction potential ORP-sORP). The DNA fragmentation index (DFI) was measured with halosperm G2. Statistical analysis was performed with bivariate correlation (Pearson) and partial correlation. ***Results***: Bivariate analysis showed that both sORP and DFI were positively associated with d motility and abnormal morphology, and negatively associated with sperm concentration, total sperm count, and a, b, and c motility. Male age was positively associated with d motility and abnormal morphology, and negatively associated with sperm volume, total sperm count, and a and b motility. sORP was positively correlated with DFI. After controlling for the effects of male age and DFI, partial correlation analysis showed that sORP was still positively correlated with d motility (0.255, p<0.05) and abnormal morphology (0.282, p<0.05), and negatively correlated with sperm concentration (-0.218, p<0.05), total sperm count (-0.175, p<0.05), and a (-0.213, p<0.05), b (-0.236, p<0.05) and c motility (-0.152, p<0.05). ***Conclusion***: These results clearly demonstrate that elevated oxidative stress, as assessed by sORP, is strongly associated with impaired spermatogenesis. They further suggest that this adverse effect is not mediated solely by sperm DNA fragmentation but may also involve additional biological pathways.
Disclosure of interest: *The authors declare no conflicts of interest.*

TWO-STEP SPERM PREPARATION MEDIUM: INCREASING HYPERACTIVATION AND PROGRESSIVE MOTILITY IN FRESH AND FROZEN SAMPLES

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Problem statement: During mammalian fertilization, sperm must reach a motility state known as hyperactivation, transitioning from progressive straight-line swimming to a vigorous whip-like pattern. Motility and hyperactivation are key biomarkers for sperm fecundity and treatment routing. A sperm preparation method known as sperm energy restriction and recovery (SER) is known to increase hyperactivation and motility. This study evaluates whether a two-step sperm preparation medium increases motility and hyperactivation in fresh and frozen samples. ***Methods***: Prospective paired split-sample study (IRB #1407330) of the two-step sperm preparation medium (treatment group) vs. HTF control across 58 ejaculates (28 fresh, 30 frozen). Each sample was split into treated and control aliquots. Treatment group samples followed a two-step protocol: wash, sperm energy restriction for 1hr, second-step sperm recovery media for 1hr (Control: HTF throughout). Aliquots were transferred to fertilization medium after the 2 hr readout. Motility was assessed via CASA CEROS II at 1, 2, 4, and 24 hr and hyperactivation calculated using the boolean-based definition (VCL≥150, LIN≤50, ALH≥7). Per-donor paired Wilcoxon signed-rank tests were applied with a 5-pp ordinal binning and sensitivity check. ***Results***: The two-step protocol raised hyperactivation percentage by a median of 21.9 percentage points (pp) from 0.9% to 22.6% (p < 0.001; 53/56 donors increased), increased progressive motility by 10.6 pp (21.0% to 30.1%; p < 0.001). The effect was step and time-dependent: hyperactivation was unchanged at 1hr after the first energy restricted medium alone, (+1.3pp), peaked at 2hr, and remained elevated at 4hr (+22.0pp, n=42; p < 0.001), and remained elevated at 24hr (+2.5pp; p < 0.001; 46/58 donors). Findings were robust to the 5 pp ordinal binning sensitivity check (2hr: median 3-bin shift, 46 of 56 donors crossed at least one bin upward, p < 0.001; 4hr: 4-bin shift, p < 0.001). ***Conclusion***: Sperm energy restriction and recovery increased progressive and hyperactivated motility in fresh and frozen samples. These findings suggest this new preparation method may improve motility associated with improved fertilization potential.

ELEVATED DOUBLE-STRAND DNA FRAGMENTATION IN SPERM IS ASSOCIATED WITH LOWER FERTILIZATION RATE BUT NOT EUPLOIDY RATES IN AUTOLOGOUS PGT-A CYCLES

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Problem statement: Elevated sperm DNA fragmentation, particularly double-strand (DS) breaks, has been linked to impaired embryo development. Evidence remains inconsistent, especially where advanced sperm selection is applied above predefined thresholds, and in autologous populations where female factors strongly influence embryo yield. We assessed whether elevated DS fragmentation compromises fertilization, blastocyst yield and euploidy in autologous intracytoplasmic sperm injection (ICSI) cycles with preimplantation genetic testing for aneuploidy (PGT-A). ***Methods***: Retrospective single-centre analysis of 254 autologous ICSI/PGT-A cycles (January 2024 to December 2024). Sperm DS fragmentation was measured by Comet assay and cycles grouped as: Normal DS Fragmentation, <60% (n=77), High DS Fragmentation 60-79% (n=147), and Very high DS Fragmentation ≥80% (n=30). Enhanced sperm selection (microfluidic sorting or SpermSlow) was applied when fragmentation was elevated (>60%). Day 5-6 blastocysts were biopsied for next-generation sequencing. Outcomes included oocytes retrieved, metaphase II (MII) oocytes, fertilization rate (2PN zygotes), freezing rate, euploid blastocysts per cycle, and euploid rate, compared by one-way ANOVA with Holm-adjusted Welch pairwise tests. ***Results***: Across 254 cycles, baseline ages were similar between groups. Very high fragmentation (≥80%) was associated with poorer conventional semen parameters: mean concentration 52.7 vs 46.7 vs 22.3 (p=0.00019) and progressive motility 36.9 vs 36.6 vs 22.7(p=0.000364) for ≤59%, 60–79%, and ≥80% groups,

respectively. Mean fertilization 2PN embryos 5.42 vs 5.94 vs 3.33 (p=0.010). Post-hoc testing showed the ≥80% group had significantly fewer 2PN than the 60–79% and 59% groups. Euploid blastocysts per cycle (0.92 vs 1.12 vs 0.83, p=0.50) and euploid rate (26.4% vs 28.6% vs 26.3%, p=0.87) were comparable. ***Conclusion***: In autologous PGT-A cycles, very high DS fragmentation appears linked to reduced fertilization rate (2PN) but not to reduced euploid rate among biopsied blastocysts. Results support targeted sperm-selection strategies and reinforce counseling that fragmentation may affect quantity more than chromosomal competence, while emphasizing the need for adjusted models and prospective validation.
Disclosure of interest: *None declared.*

MORE INFORMATION, BETTER PREDICTION? FUNCTIONAL SPERM TESTING AND THE GAP BETWEEN BIOLOGICAL SIGNAL AND OUTCOME PREDICTION IN ICSI

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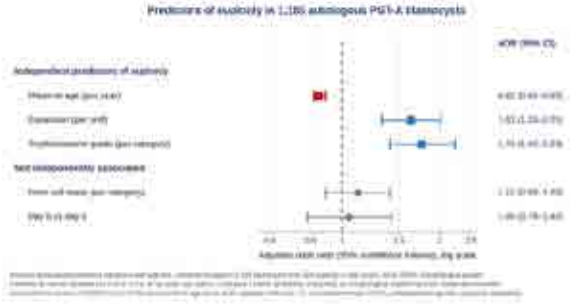
Problem statement: Advanced sperm function tests provide biological information beyond conventional semen analysis, but additional information is clinically useful only if it improves outcome prediction. We investigated whether sperm DNA fragmentation index (DFI) and hyaluronan-binding capacity (HBA) identify distinct semen phenotypes and whether these associations translate into fertilization and blastocyst development in routine ICSI. ***Methods***: This retrospective single-center study included 58 fresh ICSI cycles from 51 couples treated between January 2025 and January 2026. DFI was assessed by sperm chromatin dispersion (SCD/HALO); HBA and conventional semen parameters were obtained during andrological assessment. Associations with sperm concentration, progressive motility and normal morphology were evaluated using Spearman rank correlations. Fertilization and blastulation rates were analyzed at cycle level. Exploratory multivariable linear models adjusted for maternal age and anti-Müllerian hormone (AMH). ***Results***: DFI was available in 40 cycles (median 16.5%, IQR 11.5–28.8) and HBA in 40 (median 69.5%, IQR 54.5–81.0). Higher DFI was associated with poorer conventional semen quality, including lower sperm concentration (ρ=−0.365, p=0.021), progressive motility (ρ=−0.334, p=0.035) and percentage of morphologically normal spermatozoa (ρ=−0.458, p=0.003). Higher HBA was associated with higher sperm concentration (ρ=0.382, p=0.015) and progressive motility (ρ=0.362, p=0.022). Neither DFI nor HBA was associated with fertilization rate (DFI: n=40, ρ=0.049, p=0.762; HBA: n=40, ρ=0.129, p=0.427) or blastulation rate (DFI: n=35, ρ=−0.070, p=0.691; HBA: n=33, ρ=−0.121, p=0.501). Adjustment for maternal age and AMH did not materially alter these findings. ***Conclusion***: Functional sperm testing identified biologically distinct semen-quality profiles, but these signals did not translate into prediction of early ICSI outcomes. These real-world data highlight a central controversy in male-factor assessment: more detailed biological characterization does not necessarily provide greater clinical predictability. The relevant question is therefore not whether an additional test measures something different, but whether it adds clinically actionable information beyond established predictors.
Disclosure of interest: *None.*

EMBRYOLOGY

BEYOND MATERNAL AGE: BLASTOCYST EXPANSION AND TROPHECTODERM GRADE IMPROVE EUPLOIDY PREDICTION IN AUTOLOGOUS PGT-A CYCLES

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Problem statement: Although maternal age is a well-established risk factor for embryonic aneuploidy, its ability to predict euploidy in an individual patient is limited. Blastocyst morphology may provide useful complementary information for counseling during preimplantation genetic testing for aneuploidy (PGT-A), but the value of specific morphological parameters for predicting euploid yield remains debated. ***Methods***: This single-center retrospective cohort included 1,185 autologous blastocysts from 420 patients (466 cycles) biopsied for PGT-A and analyzed by next-generation sequencing from 2016 to 2024 in Mexico. Median maternal age was 36 years (interquartile range, 32–39). Oocyte donation cycles, rebiopsied embryos, day-3/day-7 biopsies, mosaic results, isolated segmental aneuploidies, noninformative results, and incomplete morphological data were excluded. Gardner grading assessed blastocyst expansion, inner cell mass (ICM), and trophectoderm (TE) grade. Generalized estimating equations with patient-level clustering identified independent predictors of euploidy. Discrimination was measured by area under the receiver operating characteristic curve (AUC) and internally validated in a temporal 2023–2024 cohort. ***Results***: Overall euploidy was 59.8%. Maternal age (adjusted odds ratio [aOR], 0.85; 95% confidence interval [CI], 0.82–0.89), blastocyst expansion (aOR, 1.63; 95% CI, 1.33–2.01), and TE grade (aOR, 1.76; 95% CI, 1.40–2.23) were independently associated with euploidy; ICM grade and biopsy day were not. The combined model showed better discrimination than maternal age alone (AUC, 0.73 vs 0.69; p < 0.001) and consistent validation performance (AUC, 0.71). At least one euploid blastocyst was available in 89% of cycles among women aged <35 years, 89% among those aged 35–37 years, 72% among those aged 38–40 years, and 38% among those aged ≥41 years. ***Conclusion***: Maternal age remains the primary determinant of euploid yield in autologous PGT-A cycles. Blastocyst expansion and TE grade provide modest but clinically interpretable predictive information and can inform counseling and, when PGT-A is unavailable, blastocyst prioritization. Age-stratified estimates support realistic expectations about the number of cycles required, cumulative cryopreservation, and when to discuss oocyte donation, particularly where coverage for assisted reproduction is limited. These estimates apply exclusively to blastocysts that reached biopsy and must not be interpreted as pregnancy or live-birth probabilities.



ARTIFICIAL INTELLIGENCE-ASSISTED EMBRYO SELECTION IS ASSOCIATED WITH IMPROVED REPRODUCTIVE OUTCOMES IN FROZEN EMBRYO TRANSFER CYCLES: A RETROSPECTIVE ANALYSIS OF 3,575 TRANSFERS

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Problem statement: Traditionally, embryo selection for transfer relied on morphological assessment by experienced embryologists. The integration of artificial intelligence (AI)-based tools using time-lapse morphokinetic analysis has emerged as a promising strategy to provide a more objective and standardized assessment. However, evidence regarding the clinical impact of AI-assisted embryo selection, particularly in frozen embryo transfer (FET) cycles, remains limited. Therefore, it is necessary to evaluate

whether AI-guided embryo selection is associated with improved reproductive outcomes compared with conventional embryologist-based selection. ***Methods***: Retrospective study analyzing 3575 FET cycles between January 2023-December 2025. Blastocysts were frozen and thawed using Kitazato media. Embryos were cultured for at least 2 hours prior to transfer in Global Total-LP medium (Cooper Surgical). We compared embryos selected by experienced embryologists for FET based on Gardner morphological assessment(n=2706) with embryos selected using the Chloe-EQ score generated by the artificial intelligence (AI) system Chloe®(Fairtility)(n=869). The primary outcomes evaluated were biochemical pregnancy, clinical or ongoing pregnancy, and miscarriage rates; and were compared according to the embryo selection method (embryologist-based versus AI-assisted selection). Subgroup analyses were performed according to PGT-A status and oocyte origin. ***Results***: Overall, AI-assisted embryo selection was associated with significantly higher biochemical pregnancy (59.7%vs.50.9%; OR=1.43; p<0.001) and clinical pregnancy rates (53.0%vs.45.3%; OR=1.36; p<0.001), as well as a lower miscarriage rate (13.1%vs.19.4%; OR=0.63; p=0.002) compared with embryo selection performed by embryologists. These benefits were mainly observed in cycles without PGT-A(n=2177), where AI selection achieved higher biochemical pregnancy (57.6%vs.46.4%; p<0.001), clinical pregnancy rates (52.5%vs.40.8%; p<0.001), and lower miscarriage rates (14.1%vs.21.2%; p=0.012). In contrast, no significant differences were observed in euploid embryo transfers(n=1398). Similarly, AI-assisted selection resulted in significantly improved outcomes in cycles using donor oocytes(n=2404), with higher biochemical pregnancy (60.2%vs.48.9%; p<0.001) and clinical pregnancy rates (53.4%vs.44.0%; p<0.001), together with a lower miscarriage rate (13.9%vs.20.6%; p=0.015). No statistically significant differences were found in cycles using autologous oocytes(n=1171) probably because most of these were PGT-A cycles. ***Conclusion***: The use of AI for embryo selection is associated with improved reproductive outcomes in cycles without PGT-A and in those involving donor-derived oocytes. Therefore, we believe that AI is a valuable tool to assist embryologists in embryo selection by providing a more objective and reproducible decision-making process.
Nothing to disclose.

DO SMOOTH ENDOPLASMIC RETICULUM CLUSTERS ADD INFORMATION BEYOND AN ARTIFICIAL INTELLIGENCE-BASED OOCYTE SCORE? A PROSPECTIVE STUDY OF 832 MII OOCYTES

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Problem statement: Smooth endoplasmic reticulum (SER) clusters are a recognized oocyte dysmorphism with an estimated incidence of 2-3% per oocyte (10-12% per cycle), whose impact on developmental competence remains uncertain. We assessed whether SER-positive oocytes have reduced competence and whether SER adds predictive value beyond MAGENTA score (MS), a non-invasive artificial intelligence (AI)-based oocyte score. ***Methods***: This prospective study included 100 ICSI patients (26-44 years; 2024-2026). Pre-ICSI images from 832 metaphase II (MII) oocytes were assessed with MAGENTA (0-10 score for blastocyst likelihood); SER status was recorded simultaneously. Oocytes were tracked for fertilization, blastocyst formation and preimplantation genetic testing for aneuploidy (PGT-A). PGT-A analyses were classified as favourable (euploid, n=84; low mosaic n=28). or unfavourable (non-blastocysts, n=438; aneuploid blastocysts, n=163). Blastocysts with non-interpretable PGT-A or high/unspecified mosaic were excluded (n=119). Regression models accounting for within-cycle clustering assessed MAGENTA alone, SER status alone, and variables jointly; model comparison testing evaluated the incremental predictive value of SER. ***Results***: SER-positive oocytes (n=29) exhibited lower fertilization (65.5% vs 78.7%) and blastocyst rates (31.0% vs 47.9%). However, regression analysis confirmed no significant association with either outcome (fertilization: OR=0.53, CI:0.23–1.25; blastocyst formation: OR=0.45, CI:0.19–1.08; both p>0.05). Additionally, MS tended to be lower in the SER-positive cohort (3.8 vs 4.2; p>0.05) MS was higher in oocytes forming blastocysts (4.5±2.2 vs 3.8±2.0)** and was significantly associated with blastocyst formation (OR 1.19; CI 1.11-1.28)**. In a joint model, MAGENTA remained significant whereas SER did not (OR 0.48; CI 0.20-1.14; p>0.05); adding SER did not improve model fit (p>0.05). For PGT-A analysis (n=713; 112 euploids/low mosaics), MS was significantly associated with a favourable outcome (OR 1.22; CI 1.09-1.36)** whereas SER status was not (OR 0.16; CI 0.02-1.37; p>0.05). However, adding SER to MAGENTA modestly improved fit*. *p<0.05; **p<0.001. ***Conclusion***: SER-positive oocytes exhibited trends toward reduced fertilization, blastulation, and MS, although these didn´t reach statistical significance. Conversely, MAGENTA consistently reflected competence, significantly correlating with blastocyst formation and favorable PGT-A-related outcomes. Expanded SER-positive cohorts are required to clarify these developmental impacts

PSYCHO-EMOTIONAL STRESS AS A NON-GENETIC MODULATOR OF PREIMPLANTATION EMBRYO DEVELOPMENTAL COMPETENCE IN IVF CYCLES

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Problem statement: Psycho-emotional stress is common among women undergoing IN VITRO FERTILIZATION (IVF) and may adversely affect reproductive physiology through neuroendocrine alterations. While previous studies have primarily focused on pregnancy and live birth outcomes, limited evidence exists regarding the effect of maternal psychological stress on early embryo developmental competence and morphological quality. ***Methods***: This prospective observational study evaluated 400 IVF cycles conducted over a 12-month period at a tertiary fertility center. Maternal psycho-emotional stress was assessed before oocyte retrieval using a validated questionnaire. Embryo development was monitored until the blastocyst stage using standard morphological grading criteria. Primary outcomes included cleavage rate, proportion of good-quality embryos, and blastocyst formation rate. Statistical analyses were performed to assess associations between stress levels and embryological outcomes. ***Results***: Higher psycho-emotional stress levels were significantly associated with a lower proportion of good-quality embryos compared with lower stress levels ($p < 0.05$). Blastocyst formation rates were reduced among women with elevated stress scores. A negative correlation was observed between stress levels and embryo morphological grades at both cleavage and blastocyst stages. Fertilization rates did not differ significantly across stress categories. Multivariate analysis adjusted for maternal age and ovarian stimulation protocol confirmed that elevated stress levels were independently associated with poorer embryo quality. ***Conclusion***: Maternal psycho-emotional stress appears to negatively influence early embryo developmental competence and morphological quality during IVF cycles. Incorporating psychological assessment and supportive interventions into routine fertility care may improve patient-centered reproductive outcomes. Further studies are required to determine causal relationships and evaluate the benefits of stress-reduction strategies in assisted reproductive technology programs.
Disclosure of interest: *The authors declare no conflict of interest.*

LABORATORY PERSPACTIVES, 5/4(AA) VS 5/4(BB, BA, AB) GRADE, SYNCHRONIZING THE BLASTOCYST SELECTION, MATERNAL AGE, ENDOMATRIUM THICKNESS, WITHOUT AI/TIME LAPS

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Problem statement: Embryologist Decision and Synchronization between (Lab Protocol's, D2/D5 Observation, Blastocyst Selection, Maternal Age, Endometrium Thickness), for Transfer between 5/4(AA) vs 5/4(BB, BA,AB) grade), With-out AI & Time laps. ***Methods***: The nature of data is Retrospective observational cohort study. We extract the data since 2023 to 2025.only Autologous Blastocyst are studied. total data extraction around the Laboratory Protocol's adherence, formation and selection of blastocyst for the transfer. Followed by freeze all policy. Clinical pregnancy & live birth outcomes over the three years of periods. Nature of synchronization in the 5/4(AA) vs 5/4(BB, BA, AB) grade Blastocyst, Maternal Age, Endometrium thickness without AI/ Time Laps. ***Results***: Our Data on the Retrospective observational cohort study on the 5/4(AA) vs 5/4(BB, BA, AB) grade blastocyst outcome synchronization in the maternal age group of 25-45 with the include ideal endometrium thickness and strict laboratory protocol's adherence. Which is

without time lap's and AI use. Total 1205 blastocyst use to frozen thawed transferred in the 615 patients. blastocyst were cultured at 37'c, 6% co2, 5% 02 for the 5/6 days, clinical pregnancy was achieved in 5/4(AA) 68%-(225/330), 60%-(171/285) in 5/4(BB, BA, AB), on multi variable logistic regression analysis adjusting for Blastocyst transfer number (single vs double), Blastocyst transfer remain independently associated with odds of clinical pregnancy (Adjusted OR 1.40,95%, cl 1.03-1.40) p=0.03, the number of Blastocyst transfer was not associated with pregnancy. While 5/4(AA) Blastocyst were associated with higher clinical pregnancy but not promising in statically significant in live Birth Rate which is Occurred 47% in 5/4(AA) & 43% in 5/4(BB, BA, AB). ***Conclusion***: Our Finding suggested that Blastocysts morphology primarily influences implantation potential, whereas post implantation development and live birth are likely determined by additional maternal factors, Genetics & Endocrinology beyond morphology, age, endo thickness.

ORAL PRESENTATION SESSION 11
FETOMATERNAL MEDICINE: HIGH RISK PREGNANCY:

INTRAOPERATIVE BLOOD LOSS AND ITS ASSOCIATION WITH PLACENTA ACCRETA SPECTRUM SEVERITY BASED ON THE FIGO 2019 CLASSIFICATION IN CESAREAN HYSTERECTOMY USING THE POSTERIOR APPROACH

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Objectives:To compare intraoperative estimated blood loss (EBL) across placenta accreta spectrum (PAS) severity by the FIGO 2019 classification in women undergoing posterior-approach cesarean hysterectomy, and to identify perioperative predictors of major hemorrhage.
Material and Methods: Retrospective cohort of 119 women with histologically confirmed PAS who underwent posterior-approach cesarean hysterectomy at a Thai tertiary center (2021–2025). Patients were grouped by intraoperative FIGO 2019 grade. Outcomes were compared using Kruskal–Wallis and chi-square/Fisher tests; predictors of EBL ≥2500 mL were examined by logistic regression. ***Results***: Grade 3 comprised 49% of cases (3A 34%, 3B 12%, 3C 3%); 86% were increta or percreta, and intraoperative grade concorded strongly with histology (p<0.001). Median EBL rise with grade—1,700, 1,650, and 2,950 mL for Grades 1, 2, and 3, respectively (p=0.008)—and further within Grade 3 (3A 2,350; 3B 4,250; 3C 4,750 mL; p=0.015). Operating time, packed-red-cell and plasma transfusion, and hospital stay increased in parallel (all p≤0.01). On multivariate analysis,FIGO grade was not independently associated (OR 2.28, p=0.534). Bladder injury occurred in 5%, with no ureteric or bowel injury and no maternal death. ***Conclusion***: Under the posterior approach, intraoperative blood loss trended higher with increasing FIGO 2019 grade (Grade 3 vs 1–2, p=0.008), but grade was not an independent predictor after adjustment. The technique was safe, with no maternal death. Larger prospective studies are warranted to guide risk-stratified surgical planning and blood-product preparation.

NON-INVASIVE FUNCTIONAL DIAGNOSIS OF ENDOTHELIAL DYSFUNCTION AS A BASIS FOR PERSONALISED PRE-ECLAMPSIA PREVENTION

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Problem statement: Pre-eclampsia remains a multifactorial complication of pregnancy, with an incidence of up to 8%, while existing preventive approaches remain insufficiently effective. Generalised vascular endothelial dysfunction is a key element of its pathogenesis; however, comprehensive assessment of this condition using non-invasive functional methods for early risk stratification and targeted therapy has not previously been performed. The lack of objective criteria for dynamic monitoring of endothelial function limits timely correction of disturbances and reduction of pre-eclampsia incidence. ***Methods***: 108 pregnant women in the first trimester were examined, stratified into high-risk groups: prior pre-eclampsia (n=33), high risk by combined prenatal screening (n=30), and extragenital pathology (obesity, diabetes mellitus, arterial hypertension, renal disease) (n=45). Endothelial function was assessed by peripheral arterial tonometry with calculation of the reactive hyperaemia index in the first, second and third trimesters. When endothelial dysfunction was detected, sulodexide (a glycosaminoglycan complex) was added to baseline acetylsalicylic acid therapy for 8 weeks, with subsequent dynamic monitoring. Statistical analysis included ROC analysis, McNemar`s test, and odds ratio calculation. ***Results***: In the first trimester, endothelial dysfunction was detected in 55% of high-risk patients. With combined therapy (acetylsalicylic acid + sulodexide), the frequency of dysfunction decreased to 64% in the second trimester and to 10% in the third trimester. In patients with persistent dysfunction in the third trimester, the risk of pre-eclampsia was 79.8-fold higher than in patients without dysfunction. The predictive value of the functional test in the third trimester was: sensitivity 92.9%, specificity 100%. Among 46 patients followed dynamically throughout pregnancy, pre-eclampsia developed in only 4 (8.7%); no cases of severe disease were recorded. The most significant risk factor was prior pre-eclampsia, with an incidence of 39.4%, significantly higher than in other groups. ***Conclusion***: The developed early-diagnosis algorithm, based on dynamic assessment of endothelial dysfunction using a non-invasive functional method, enables timely identification of pregnant women who require additional endothelioprotective therapy with sulodexide in addition to standard acetylsalicylic acid. Dynamic monitoring of endothelial status throughout pregnancy provides effective correction of vascular disturbances, significantly reduces the incidence of pre-eclampsia, and completely eliminates its severe manifestations, confirming the clinical efficacy of the proposed approach.
Disclosure of interest: *None declared*

RAISED INTRACRANIAL TENSION PRESENTING AS AN ISOLATED RIGHT SIXTH NERVE PALSY IN THE THIRD TRIMESTER OF A HIGH RISK PREGNANCY: A CASE REPORT

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Problem statement: Isolated sixth cranial nerve palsy in pregnancy is rare and can signal raised intracranial tension (ICT), a diagnosis complicated by overlapping high-risk obstetric conditions and the need to balance maternal neurological work-up against fetal wellbeing. ***Methods***: We describe a 30-year-old woman, gravida 2 abortus 1 (G2A1), whose pregnancy was complicated by cervical insufficiency requiring rescue cerclage, gestational diabetes mellitus (GDM) on insulin, and intrahepatic cholestasis of pregnancy (IHCP). At 31 weeks 6 days of gestation she developed acute painless loss of right eye abduction with mild headache. She underwent urgent neurology and ophthalmology referral, magnetic resonance imaging (MRI) of the brain and orbits with venography, lumbar puncture with cerebrospinal fluid (CSF) manometry and analysis, and serum inflammatory/autoimmune screening. ***Results***: MRI showed mild perioptic space prominence, optic nerve tortuosity, and bilateral transverse–sigmoid junction narrowing, with a normal orbital apex and no venous sinus thrombosis. CSF opening pressure was markedly elevated at 24 cm H_2O with otherwise normal biochemistry, cytology, and a negative meningoencephalitis multiplex polymerase chain reaction (PCR) panel. Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) were mildly raised; angiotensin-converting enzyme (ACE) and immunoglobulin G4 (IgG4) were normal, excluding sarcoidosis and IgG4-related disease. Raised ICT of idiopathic intracranial hypertension type — initially considered as possible orbital apex syndrome — was confirmed as the cause of the isolated right sixth nerve palsy. She was treated with acetazolamide alongside multidisciplinary glucose and fetal surveillance, with clinical stabilisation, and underwent elective high-risk lower-segment caesarean section at 35 weeks 6 days, delivering a healthy female infant weighing 2.33 kg. ***Conclusion***: Isolated sixth nerve palsy in pregnancy may be a false-localising sign of raised intracranial tension rather than a structural orbital lesion, even when initially mimicking orbital apex syndrome. Systematic exclusion of infective, thrombotic, neoplastic, and granulomatous causes, combined with acetazolamide therapy and close multidisciplinary obstetric

surveillance, permitted safe continuation of pregnancy to a favourable maternal and neonatal outcome.
Disclosure of interest: *None declared.*



Figure 1: Clinical photograph demonstrating right eye abduction deficit.

HYPOKALEMIA IN PREECLAMPSIA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF SERUM POTASSIUM LEVELS COMPARED TO NORMAL PREGNANCY

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Problem statement: Preeclampsia remains a major cause of maternal and perinatal morbidity and mortality, and emerging data suggest that electrolyte disturbances, particularly hypokalemia, may contribute to disease development and severity. This study aimed to systematically review and meta-analyze observational evidence comparing serum potassium levels between preeclamptic patients and normotensive pregnant controls, and to explore the relationship between hypokalemia and preeclampsia severity. ***Methods***: A systematic search of PubMed, EBSCO, Clinical Key, Google Scholar, Cochrane Library, and Herdin identified observational studies published from 2015 to January 2025 that reported mean serum potassium (mmol/L) in preeclamptic and normotensive pregnancies. Eligible designs included cross-sectional, case-control, and cohort studies. Two reviewers independently screened records, extracted data, and assessed risk of bias using the Risk Of Bias In Non-Randomized Studies - of Interventions (ROBINS-I) tool; evidence certainty was graded with the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. Pooled weighted mean differences (WMDs) with 95% confidence intervals (CIs) were calculated using inverse-variance models, with random-effects and sensitivity analyses performed because of anticipated heterogeneity. ***Results***: Nine studies (n = 1,165; 508 preeclampsia, 657 controls) from Asia, Africa, and the Middle East met the inclusion criteria. Most studies reported lower potassium levels in preeclampsia, with several demonstrating a stepwise decline from normotensive to mild and severe disease. The primary meta-analysis revealed significantly reduced serum potassium in preeclampsia (WMD −1.00 mmol/L, 95% CI −1.04 to −0.96; $p < 0.00001$), accompanied by extreme heterogeneity ($I^2 = 98\%$). Sensitivity analysis limited to studies stratifying by severity showed a smaller but still significant difference (WMD −0.50 mmol/L, 95% CI −0.85 to −0.15). All studies were at least moderate, and most were at serious, risk of bias, particularly for confounding and participant selection. The overall certainty of evidence for the primary outcome was rated very low. ***Conclusion***: Women with preeclampsia appear to have lower mean serum potassium levels than normotensive controls, with a possible gradient toward greater hypokalemia in more severe disease. However, heterogeneity and methodological limitations preclude causal inference or standalone biomarker use. Routine electrolyte monitoring with correction of clinically significant hypokalemia is reasonable within comprehensive preeclampsia care.

CHRONIC HYPERTENSION RATHER THAN OTHER HDP SUBTYPES IS ASSOCIATED WITH STILLBIRTH: EVIDENCE FROM A CHINESE BIRTH COHORT

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Background: Hypertensive disorders of pregnancy (HDP) significantly increase the risk of adverse pregnancy outcomes; however, studies have yielded inconsistent conclusions regarding the association between HDP subtypes and stillbirth, and the underlying mechanisms remain incompletely understood. This study investigated the associations between HDP subtypes and stillbirth risk and explored the mediating role of first-trimester dyslipidemia in the association between chronic hypertension and stillbirth. ***Methods***: Data from 334,924 participants enrolled in the China Birth Cohort Study (CBCS) between February 2018 and December 2022 in mainland China were analyzed. Multivariable logistic regression was used to assess the associations between four HDP subtypes and stillbirth. Stillbirth incidence curves across gestation were plotted to compare women with and without HDP. Causal mediation analysis was performed to evaluate the mediating effects of first-trimester dyslipidemia, including triglycerides (TG), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), and high-density lipoprotein cholesterol (HDL-C), on the association between chronic hypertension and stillbirth. ***Results***: In unadjusted analyses, HDP was associated with an increased risk of stillbirth. After adjustment for confounders, no independent associations were observed for HDP overall, gestational hypertension, preeclampsia/eclampsia, or chronic hypertension with preeclampsia; only chronic hypertension remained independently associated with stillbirth (adjusted OR = 3.31, 95% CI: 1.98–5.55). Stepwise adjustment indicated that sociodemographic, behavioral, and obstetric factors partially explained the association between HDP and stillbirth. In crude analyses, stillbirth incidence was higher among women with HDP, whereas the adjusted incidence curves largely overlapped. Low HDL-C and high TG in early pregnancy mediated 5.79% and 4.61% of the association between chronic hypertension and stillbirth, respectively, whereas high LDL-C and high TC showed no significant mediating effects. ***Conclusion***: Among HDP subtypes, only chronic hypertension was independently associated with stillbirth in the CBCS population. Low HDL-C and high TG in early pregnancy partially mediated this association, suggesting that lipid metabolism abnormalities may contribute to chronic hypertension-associated stillbirth.

GESTATIONAL DIABETES AND PLACENTAL VASCULAR DYSFUNCTION: IS MATERNAL HYPERGLYCEMIA RESHAPING THE FETAL-PLACENTAL CIRCULATION?

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Problem statement: Gestational diabetes mellitus (GDM) is a metabolic condition linked to immediate and long-term problems for both the mother and the fetus. Changes in placental vascular development and function are one of the pathophysiological effects of maternal hyperglycemia that may hinder maternal-fetal exchange and lead to unfavorable pregnancy outcomes. Comprehending the connection between GDM and placental vascular dysfunction should enhance risk assessment in pregnancies afflicted by the condition and offer insights into the mechanisms driving fetal problems. **Methods:** A systematic literature review was conducted using PubMed/MEDLINE (n=47) and the Virtual Health Library (VHL) (n=23). The search strategy included the terms “Gestational Diabetes” and “Placental Vascular Dysfunction”, as well as their synonyms and combinations. The research question was: “What is the association between gestational diabetes mellitus and placental vascular dysfunction?” Observational and analytical studies directly addressing the relationship between GDM and alterations in placental vascularization were included. **Results:** Changes in placental vascular development and function have been repeatedly linked to GDM. Endothelial dysfunction and structural alterations in the placental vasculature were linked to maternal hyperglycemia. Chorionic villous maturation abnormalities and prenatal vascular malperfusion were among the histopathological findings. Additionally, aberrant villous remodeling and altered capillary density were structural abnormalities that may have compromised the efficacy of placental exchange. Stronger indicators of placental malfunction were linked to poor maternal glycemic management. Changes in circulating fetal microchimerism in pregnancies exacerbated by GDM have also been found in several investigations. Additionally, the degree of endothelial dysfunction seemed to differ depending on the mother`s metabolic control and treatment strategy, which included insulin therapy and nutritional control. **Conclusion:** Significant structural and functional changes in placental vascularization are linked to gestational diabetes mellitus, which may have a negative impact on fetal and postnatal outcomes. The available evidence indicates that the degree of placental vascular dysfunction is significantly influenced by the mother`s glycemic management. Improved risk categorization and

more customized maternal-fetal surveillance may result from early detection of these changes.
Disclosure of interest: *The authors declare no conflicts of interest.*

SIGNIFICANCE OF OBSTETRIC-COMORBIDITY-INDEX IN DETERMINING INCIDENCE OF SEVERE MATERNAL MORBIDITY IN PATIENTS ADMITTED IN THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY AT A TERTIARY HOSPITAL IN PASAY CITY

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Problem statement: The Obstetric Comorbidity Index (OB-CMI) may help identify obstetric patients who require heightened surveillance and risk-appropriate care. This study evaluated the prognostic accuracy of the OB-CMI for identifying severe maternal morbidity (SMM) among patients admitted to a tertiary hospital in Pasay City from September 2024 to 2025. ***Methods***: This prospective analytic study included 100 women aged 19–45 years with term singleton pregnancies who underwent vaginal or cesarean delivery. Collected variables included age, gestational age, gravida, parity, body mass index, maternal comorbidities, mode of delivery, maternal and neonatal disposition, intensive care unit admission, blood transfusion, and OB-CMI classification. SMM was defined as intensive care unit admission and/or transfusion of four or more units of blood. Descriptive statistics and prognostic accuracy measures were calculated. ***Results***: Participants had a mean age of 29.58 years and a mean gestational age of 38.13 weeks. Twenty-eight percent had at least one maternal comorbidity; 61.0% delivered vaginally and 39.0% underwent cesarean delivery. Three patients met the SMM definition. The OB-CMI yielded 2 true positives, 2 false positives, 1 false negative, and 95 true negatives. Sensitivity was 66.67%, specificity was 97.94%, positive predictive value was 50.00%, negative predictive value was 98.96%, and overall accuracy was 97.00%. ***Conclusion***: The OB-CMI showed high specificity and moderate sensitivity for identifying SMM among women with term singleton pregnancies. Its high negative predictive value suggests usefulness in identifying patients unlikely to develop SMM; however, one case was missed. The OB-CMI should therefore complement, rather than replace, comprehensive clinical assessment and continuous intrapartum monitoring. Larger multicenter studies with more SMM events are recommended to further validate its predictive performance and clinical utility.

ASSOCIATION BETWEEN FIRST-TRIMESTER PREDICTED PREECLAMPSIA RISK AND GESTATION AGE AT DELIVERY

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Introduction: Preeclampsia (PE) is a major obstetric complication whose severity and associated morbidity are strongly correlated with the earlier gestational age at delivery. Although first-trimester FIGO-based screening and aspirin prophylaxis effectively identify and mitigate high-risk pregnancies, a subset of women still subsequently develops the disease. A crucial unanswered clinical question is whether the predicted risk calculated in the first trimester correlates with disease severity to reflect the gestational age at delivery. Establishing this relationship is vital for identifying women at the highest risk for early preterm delivery, thereby enabling individualized antenatal surveillance and optimizing maternal-neonatal outcomes. ***Objectives***: To investigate whether first-trimester FIGO-based predicted risk of preterm preeclampsia (PE) differs according to gestational age at delivery among women who subsequently developed PE. ***Methods***: We analyzed 47 women who underwent first-trimester FIGO-based PE screening and later developed PE. Participants were classified by gestational age at delivery as <34 weeks (n=8), 34–36 weeks (n=15), or ≥37 weeks (n=24). Maternal characteristics, pre-existing medical conditions, first-trimester screening parameters, predicted risk of preterm PE, and aspirin prophylaxis were compared across groups. Continuous variables were analyzed using the Kruskal–Wallis test and categorical variables using the Fisher–Freeman–Halton exact test. ***Results***: Maternal age, body mass index, method of conception, parity, previous hypertensive disease, and pre-existing medical conditions were not significantly different across gestational-age groups. First-trimester mean arterial pressure and uterine artery pulsatility index also did not differ significantly. However, FIGO-based predicted risk of preterm PE differed across groups (P=0.013). Women who delivered before 34 weeks had the highest predicted risk, with a median risk of 1:29 (interquartile range [IQR], 1:11.5–1:54), compared with 1:299.5 (IQR, 1:110–1:714) among those delivering at 34–36 weeks and 1:96 (IQR, 1:80–1:244) among those delivering at ≥37 weeks. Aspirin prophylaxis was used in 87.5%, 73.3%, and 62.5% of women, respectively, without a significant between-group difference (P=0.478). ***Conclusion***: Among women who developed PE, a higher first-trimester predicted risk was associated with earlier delivery, particularly before 34 weeks. The magnitude of predicted risk may help identify women at greatest risk of early preterm PE and support individualized antenatal surveillance.

THE TRAMLINE SIGN: A NOVEL ULTRASOUND MARKER FOR PLACENTA ACCRETA SPECTRUM SEVERITY

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Problem statement: Placenta accreta spectrum (PAS) is characterized by abnormal placental adherence or invasion and is associated with massive obstetric hemorrhage and substantial maternal morbidity. Accurate antenatal classification of PAS severity is crucial for optimizing surgical planning and management. The "Tramline" sign is a novel three-dimensional (3D) ultrasonography marker. However, evidence regarding its role in grading PAS severity remains limited. The objective is to evaluate diagnostic performance of the 3D ultrasonography Tramline sign for antenatal PAS severity classification compared to conventional two-dimensional (2D) ultrasonography. ***Material and Methods***: This retrospective diagnostic accuracy study included 100 singleton pregnant women with PAS who delivered between 28 to 38 weeks of gestation at the PAS center, Songklanagarind Hospital between January 2016 and August 2026. Retrieved third-trimester 2D and 3D ultrasonography images were reviewed blindly to the final diagnosis and independently graded for PAS severity. Diagnostic accuracy was determined using intraoperative PAS grading as the reference standard. ***Results***: A total of 100 patients were included 16 Accreta, 28 Increta, and 56 Percreta. The 2D ultrasonography achieved overall accuracy of 62.0% (95% CI, 51.7–71.5%) in PAS grading. In comparison, the 3D ultrasonography achieved overall accuracy of 78.0% (95% CI, 68.6–85.7%) which is higher than 2D ultrasonography. In the severity-specific analysis of 3D ultrasonography, the sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy for diagnosing placenta accreta were 81.2% (95% CI, 54.4-96.0%), 91.7% (83.6-96.6%), 65.0% (40.8-84.6%), 96.2% (89.4-99.2%), and 90.0% (82.4-95.1%), respectively. The corresponding values for placenta increta were 67.9% (47.6-84.1%), 84.7% (74.3-92.1%), 63.3% (43.9-80.1%), 87.1% (77-93.9%), and 80.0% (70.8-87.3%), respectively. Those for placenta percreta were 82.1% (69.6-91.1%), 90.9% (78.3-97.5%), 92.0% (80.8-97.8%), 80.0% (66.3-90.0%), and 86.0% (77.6-92.1%), respectively. ***Conclusion***: The 3D ultrasonographic "Tramline" sign demonstrated higher diagnostic performance than 2D ultrasonography for antenatal PAS severity classification. Accurate antenatal assessment of PAS grading supports proper management and potentially reduce PAS-related maternal morbidity.

ASSOCIATION BETWEEN ROUTINE BLOOD COUNT PARAMETERS AND SUPERIMPOSED PREECLAMPSIA IN PREGNANT WOMEN WITH CHRONIC HYPERTENSION

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Objective: Superimposed preeclampsia (SIP) in women with chronic hypertension (CH) is associated with increased maternal and perinatal morbidity. This study aimed to investigate the trimester-specific associations between complete blood count (CBC) parameters and SIP risk. ***Methods***: This multicenter prospective cohort study was conducted within the China Birth Cohort Study (CBCS) between February 2018 and December 2022. Among 11,103 initially identified participants, 1,823 pregnant women with CH were included, comprising 1,015 women with CH alone and 808 with SIP. Maternal characteristics and trimester-specific CBC parameters, including hemoglobin (Hb), hematocrit (HCT), platelet count, mean platelet volume, plateletcrit, and

platelet distribution width, were collected. Multivariable logistic regression was used to evaluate associations between CBC parameters and SIP risk. ***Results***: Compared with the CH group, women with SIP were older, had a higher proportion of multiple pregnancies, and were less likely to regularly use prenatal multivitamins (all P < 0.05). First-trimester Hb <100 g/L (aOR = 4.39, 95% CI: 1.90–10.10) and HCT <33% (aOR = 2.43, 95% CI: 1.17–5.05) were associated with increased SIP risk. In the second trimester, Hb ≥130 g/L (aOR = 1.43, 95% CI: 1.08–1.89) and HCT ≥40% (aOR = 1.68, 95% CI: 1.03–2.73) were associated with higher SIP risk. In the third trimester, Hb <100 g/L was associated with increased SIP risk (aOR = 1.43, 95% CI: 1.02–2.04). ***Conclusion***: Hb and HCT showed trimester-specific associations with SIP risk. Lower Hb/HCT in the first trimester, higher Hb/HCT in the second trimester, and lower Hb in the third trimester were associated with increased SIP risk. Dynamic monitoring of Hb and HCT throughout pregnancy may help identify women with CH at high risk of SIP.

Keywords: *chronic hypertension; superimposed preeclampsia; complete blood count; hemoglobin; hematocrit; pregnancy complications*

EARLY- AND MID-PREGNANCY INTERLEUKIN PROFILES IN GESTATIONAL HYPERTENSION AND PREECLAMPSIA: A NESTED CASE-CONTROL STUDY

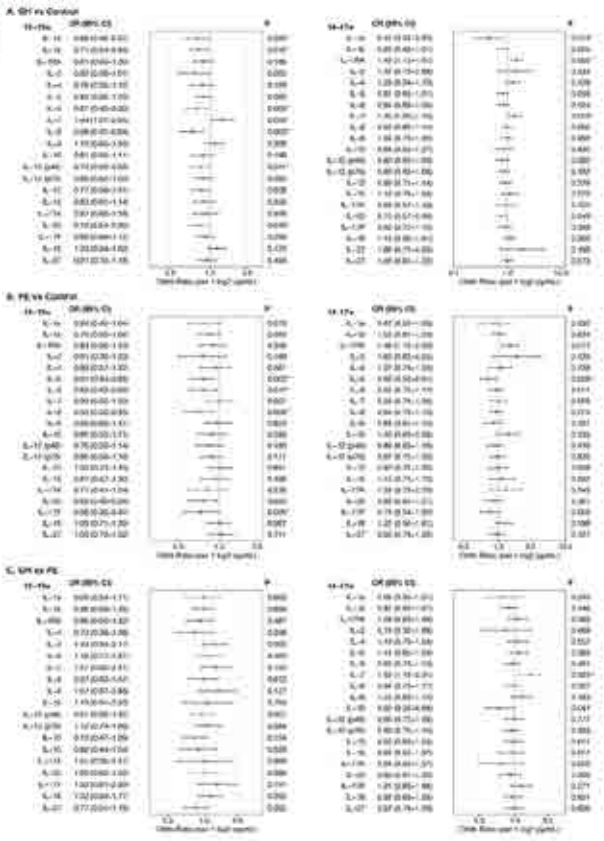
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Problem statement: Gestational hypertension (GH) and preeclampsia (PE) are major contributors to maternal and perinatal mortality and morbidity. Immune-inflammatory dysregulation is increasingly implicated in their pathogenesis. As key mediators of immune regulation, interleukins (ILs) may reflect inflammatory features, but their profiles in GH and PE across early and mid-pregnancy remain incompletely defined. ***Methods***: This nested case-control study was conducted within a prospective cohort at Beijing Haidian District Maternal and Child Health Hospital (2016-2017). Serum samples at 10–13 (early pregnancy) and 14–17 weeks of gestation (mid-pregnancy) were assayed for 21 ILs by multiplex Luminex bead based assay. Logistic regression models were applied to adjust clinical characteristics. The area under the receiver operating characteristic curve (AUC) was used to assess discriminative performance. ***Results***: Total of 169 GH cases, 91 PE cases, and 270 frequency-matched normotensive controls were included. Multivariable logistic regression showed that both GH and PE were associated with lower IL-6, IL-8, and IL-25 in early pregnancy and higher IL-1 receptor antagonist (IL-1RA) in mid-pregnancy. GH was characterized by lower IL-1α, IL-1β and IL-12(p40) and higher IL-7 in early pregnancy, as well as lower IL-1α and IL-25 and persistently higher IL-7 in mid-pregnancy. PE was characterized by lower IL-5 and IL-17F in early pregnancy and persistently lower IL-5 in mid-pregnancy. Compared with PE, GH showed higher IL-7 and lower IL-10 in mid-pregnancy. The AUCs of early-pregnancy IL-8 and mid-pregnancy IL-1RA for predicting GH and PE from controls ranged from 0.63 to 0.66. Early- and mid-pregnancy IL-5 distinguished PE from controls with AUCs of 0.68 and 0.62, respectively. Mid-pregnancy IL-7 and IL-10 yielded AUCs of 0.63 and 0.61 for discriminating GH from PE, respectively. ***Conclusion***: GH and PE share overlapping but partially distinct IL signatures, supporting the coexistence of shared and disorder-specific inflammatory mechanisms. Given the modest performance of individual ILs, multi-marker combinations may improve early risk assessment of GH and PE, which warrants further investigation.

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THE EFFECTS OF PRENATAL ALCOHOL EXPOSURE ON FETAL GROWTH, NEURODEVELOPMENT AND INFANT HEALTH: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Problem statement: This study aimed to quantitatively synthesize the effects of prenatal alcohol exposure (PAE) on fetal growth, neurodevelopment, and infant health outcomes, and to provide an integrated overview of the underlying biological mechanisms. ***Methods***: A systematic review and meta-analysis was conducted in accordance with PRISMA guidelines. Electronic databases (PubMed, Scopus, Web of Science, Embase, and Cochrane Library) were searched for studies published between January 2015 and December 2025. Cohort studies examining any level of maternal alcohol use during pregnancy and reporting infant-related outcomes were included. Data extraction and quality assessment (Newcastle-Ottawa Scale) were performed independently by two reviewers. Pooled effect sizes were calculated using a random-effects model with Restricted Maximum Likelihood (REML). Subgroup analyses were conducted based on exposure level (low–moderate vs. heavy) and outcome domains. ***Results***: A total of eligible cohort studies were included in the meta-analysis. Both low–moderate and heavy PAE were associated with significantly adverse infant health outcomes. The pooled effect size was small-to-moderate for low–moderate exposure (d = −0.205, 95% CI [−0.360, −0.050], p = .017) and moderate for heavy exposure (d = −0.457, 95% CI [−0.675, −0.239], p = .001), with a statistically significant difference between subgroups (p = .031). In secondary analyses, PAE demonstrated significant negative effects on fetal growth (d = −0.303, p = .043) and neurodevelopment (d = −0.328, p = .014), while effects on clinical complications did not reach statistical significance (p = .057). No significant differences were observed across outcome domains. High heterogeneity was present across analyses (I^2 range: 68–96%). Although funnel plot asymmetry was detected, it was largely attributable to between-study heterogeneity rather than publication bias. ***Conclusion***: Prenatal alcohol exposure is consistently associated with adverse effects on fetal and infant health, with greater impact observed at higher exposure levels. These findings reinforce the importance of

preventive strategies and support recommendations advocating complete abstinence from alcohol during pregnancy.

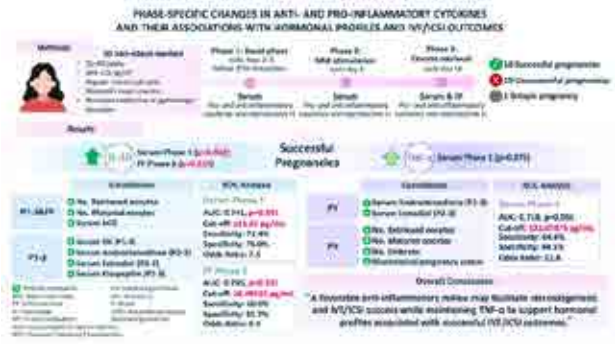
ORAL PRESENTATION SESSION 12
ART/IVF/INFERTILITY: INFERTILITY/ENDOCRINOLOGY | GENETICS & GENOMICS

INFERTILITY/ENDOCRINOLOGY

PHASE-SPECIFIC CHANGES IN ANTI- AND PRO-INFLAMMATORY CYTOKINES AND THEIR ASSOCIATIONS WITH HORMONAL PROFILES AND IVF/ICSI OUTCOMES

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Problem statement: Inflammatory cytokines play essential roles in ovarian physiology and reproductive function. Previous studies have investigated the detrimental effects of excessive pro-inflammatory cytokines on steroidogenesis and reproductive outcomes, whereas anti-inflammatory cytokines such as IL-10 have received limited attention. Furthermore, the phase-specific dynamics of anti- and pro-inflammatory cytokines in serum and follicular fluid (FF) during IVF/ICSI treatment, and their associations with hormonal profiles and treatment outcomes, remain uninvestigated. ***Methods***: This prospective observational study included 30 non-obese women (BMI <25 kg/m² according to Asian criteria) aged 25–40 years undergoing IVF/ICSI treatment between April 2018 and May 2019. Serum samples were collected during Phase 1 (basal phase, cycle days 2–3 before rFSH stimulation), Phase 2 (cycle day 8, mid-stimulation), and Phase 3 (ovum pick-up). FF was collected at Phase 3. Clinical pregnancy was confirmed by ultrasound on day 42 of the cycle. ***Results***: Serum IL-10 at Phase 1 (p=0.032) and FF IL-10 (p=0.019) were significantly higher in successful than unsuccessful pregnancies, while serum TNF-α at Phase 1 showed a non-significant trend toward higher levels (p=0.075). In successful participants, serum IL-10 (Phases 1–3) and FF IL-10 were positively correlated with IVF/ICSI outcomes (retrieved and/or mature oocytes and/or serum hCG), with serum LH at Phases 1–3, and with serum androstenedione, estradiol, and kisspeptin at Phases 2–3, all of which are hormones associated with favorable IVF/ICSI outcomes. Serum TNF-α at Phase 1 was positively correlated with IL-10 at Phase 1, and with serum androstenedione and estradiol at Phase 2. These associations were weaker or absent in unsuccessful pregnancies. ROC analysis exhibited significant predictive performance for serum IL-10 at Phase 1 (AUC=0.741; cut-off ≥11.31 pg/mL; OR=7.5), FF IL-10 (AUC=0.785; cut-off ≥8.49 pg/mL; OR=9.0), and borderline serum TNF-α at Phase 1 (AUC=0.718, p=0.051; OR=12.8) for IVF/ICSI success. ***Conclusion***: Successful pregnancies were characterized by higher IL-10 during the early follicular phase and in FF, together with a trend toward higher serum TNF-α at Phase 1, suggesting that a favorable anti-inflammatory milieu may facilitate steroidogenesis and IVF/ICSI success while maintaining TNF-α to support hormonal profiles associated with successful IVF/ICSI outcomes.



INTRAOVARIAN ADMINISTRATION OF AUTOLOGOUS ADIPOSE-DERIVED STEM CELLS AS INVESTIGATIONAL REGENERATIVE STRATEGY TO ENHANCE OVARIAN FUNCTION AND FOLLICULOGENESIS IN WOMEN WITH DIMINISHED RESERVE

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Problem statement: Women with diminished ovarian reserve and repeated cancelled stimulation cycles represent one of the most challenging groups in reproductive medicine. Many patients have undergone multiple ovarian rejuvenation strategies, including platelet-rich plasma (PRP), exosome-based therapies, and other regenerative approaches, without achieving follicular recruitment or oocyte retrieval. Evidence supporting true functional ovarian recovery remains limited. ***Methods***: Retrospective study includes 48 women with poor ovarian response. The participants, aged between 40.8 and 49.2 years (mean age 44.6 years), underwent intraovarian ADSC rejuvenation from January to May 2025, with results monitored over a six-month follow-up period. Initial assessments measured AMH and FSH levels, antral follicle count (AFC), and previous stimulation responses. Post-treatment evaluations included changes in FSH and AMH levels and the outcomes of ovarian stimulations for oocyte / embryo banking. ADSCs were isolated from autologous adipose tissue and injected intraovarianly. Study focused on women with very low ovarian reserve, characterized by AMH levels often below 0.5 ng/mL, multiple failed IVF attempts (mean of 3–5 cycles), and minimal follicular growth in prior stimulations. Participants were divided into: (A) advanced ovarian failure, (B) active responders, (C) limited responders, and (D) loss to follow-up, with outcomes compared to matched controls without stem cell therapy. ***Results***: After intraovarian ADSC administration, a subset of patients demonstrated a transient increase in AMH and reduction in FSH, typically within the first 4–12 weeks after the procedure. In Group A (advanced ovarian failure, baseline FSH >30 IU/L), FSH levels decreased but functional folliculogenesis was not restored, as follicles were absent or contained no viable oocytes, similar to control cycles without ADSC. In contrast, Groups B (active responders) and C (limited responders) demonstrated follicular recruitment following multiple prior cycles without follicular growth in matched control data. One to six follicles developed during controlled ovarian stimulation, allowing retrieval of one or several mature oocytes, and embryo formation for banking. The activation period commenced between 24 to 68 days following ADSC administration and continued for 120-180 days. After this period, the ovarian response began to decrease, with hormonal markers gradually returning to baseline levels.
The authors declare no conflict of interest.

IMPROVED PREGNANCY RATES FOLLOWING SUPPLEMENTATION WITH A 3.6:1 MYO-/D-CHIRO-INOSITOL AND ANTIOXIDANT COMBINATION IN WOMEN WITH ≥6 MONTHS OF INFERTILITY: AN OBSERVATIONAL STUDY

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From age 32, reproductive ageing is associated with declining oocyte quality, partly driven by mitochondrial dysfunction and oxidative stress. Metabolic dysfunction is also common in infertility, affecting up to 80% of women with PCOS/PMOS and 30.5% of those undergoing IVF without this condition. Combined inositol and antioxidant supplementation may help reduce oxidative stress and support metabolic and hormonal homeostasis, with the 3.6:1 MYO/DCI ratio showing reproductive benefits. Herein, we report a planned interim analysis of FERTILOBS (NCT07083999), the first study to evaluate spontaneous clinical pregnancy (SCP) following supplementation with a food supplement containing a 3.6:1 MYO:DCI ratio and antioxidants. FERTILOBS is a prospective, multicenter, uncontrolled observational study conducted across 20 public and private centers in Spain. The interim analysis included 98 women. Key exclusion criteria include obesity, severe male factor, planned assisted reproductive treatment, and ≥2 previous miscarriages. Participants receive 1100 mg MYO + 300 mg DCI daily (3.6:1 ratio), combined with antioxidants, commercially available as Ovosicare® Fertility, for up to 6 months. The primary endpoint is ultrasound-confirmed SCP rate, with time to clinical pregnancy assessed as a secondary endpoint. The interim population comprised 98 women (mean age, 34.5 years; 45.9% aged ≥35 years; 15.3% with PMOS). The cumulative SCP (rate at 9 months was 63.3% (62/98)). Mean time to clinical pregnancy was 3.3 months. Subgroup analyses further assessed SCP and time to pregnancy according to PMOS status and age group (32–34 vs. 35–38 years). No significant differences were observed between women with and without PMOS in SCP rate (80.0% [12/15] vs. 60.2% [50/83]; P=0.144) or mean time to pregnancy (3.3 months in both groups; P=0.650). Women aged ≥35 years had a significantly higher SCP rate than those aged <35 years (75.6% [45/98] vs. 52.8% [53/98]; P=0.020), while mean time to conception was similar (3.0 vs. 3.7 months; P=0.2185). These preliminary findings suggest a positive effect of Ovosicare® Fertility combination on direct reproductive outcomes, with particularly favorable pregnancy rates observed in women aged ≥35 years, irrespective of PMOS status. Although these uncontrolled interim findings require confirmation in the full cohort.

IDENTIFICATION OF RISK FACTORS THAT INCREASE CADMIUM EXPOSURE

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Problem statement: Metalloestrogens are class of inorganic endocrine disruptors that are able to mimic or interfere with the effects of natural estrogens. Cadmium (Cd), is among the ubiquitous heavy metals that are able to bind to estrogen receptors and act as female reproductive toxin affecting both male and female fertility. Based on in vitro and in vivo studies, exposure to cadmium is linked with the induced oxidative stress, insulin resistance, menstrual cycle disturbances, hormonal imbalance and even miscarriages. ***Methods***: This cross-sectional study involved 50 women who are candidates for ART procedures with preserved ovarian function at the Special Gynecological Hospital “Genesis”, Serbia. The exclusion criteria were women who are/were working in surrounding with high exposure to cadmium (i.e. battery manufacturing). All participants provided first morning urine samples for exposure assessment and cadmium levels were quantified by an inductively coupled plasma mass spectrometer following microwave-assisted digestion. ***Results***: Cadmium was detected above 0.5 µg/L in 28% of urine samples. Although the frequency of the detection (28%) was almost two times lower from the value reported in lung cancer patients (62%) in the same geographic area, the quantified average concentration (3.02 µg/L) and even the lowest obtained cadmium level (0.86 µg/L) were multiple times higher than the mean value for healthy adults reported by the ATSDR ToxGuide (0.185 µg/L). In addition, the average cadmium concentration obtained in this study significantly suppressed the urine cadmium levels in pregnant and non-pregnant women within National Health and Nutrition Examination Survey in USA (median urine concentration of 0.167 µg/L). ***Conclusion***: The obtained results suggest that exposed women have considerable levels of cadmium in urine samples. Further research is needed in order to elucidate how smoking habits and diet contribute to cadmium exposure and ART outcomes.

Study funding: *The study was supported by the Provincial Secretariat for Higher Education and Scientific Research, AP Vojvodina, Republic of Serbia, Grant No. 003875952 2025 09418 003 000 000 001 04 004*

EFFECTS OF ESTETROL/DROSPIRENONE VERSUS ETHINYL ESTRADIOL/ DROSPIRENONE ON VENOUS THROMBOEMBOLISM-RELATED BIOMARKERS IN WOMEN WITH PMOS: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Polyendocrine Metabolic Ovarian Syndrome (PMOS) is associated with an increases risk of venous thromboembolism (VTE) compared with the general population. Combined oral contraceptives (COCs), particularly those containing ethinyl estradiol (EE), are a widely used as first-line therapy for menstrual regulation; however, they may further increase VTE risk. Estetrol/drospirenone (E4/DRSP), a newer COCs formulation, has been associated with a low incidence of VTE in the general population, but data in women with PMOS remain limited. ***Methods***: This single-center, randomized, open-label, controlled trial compared the effects of E4/DRSP with EE 20 µg/DRSP 3 mg (EE/DRSP) on coagulation parameters in women with PMOS. Sixty-six participants were randomized (33 per group) to receive a cyclic COCs regimen consisting of 24 active hormonal pills followed by 4 hormone-free days for 12 weeks. Coagulation parameters were assessed at baseline and at the end of treatment. ***Result***: A total of 66 women with PMOS were randomized. The median age was 24 years (Interquartile range 21 to 28.8); 57.6% had obesity and 10.6% had dyslipidemia. Baseline characteristics were comparable between the two treatment groups. At the end of the study, 31 participants in the E4/DRSP group and 33 in the EE/DRSP group completed treatment. Mean changes (95% confidence interval) in coagulation-related biomarkers significantly between E4/DRSP and EE/DRSP for factor VIIa (%) (4 [-3.5 to 11.5] vs 41 [33.7 to 48.4], p <0.001), factor Xa (%) (-0.9 [-6.4 to 4.7] vs 15.7 [10.3 to 21.1], p <0.001), D-dimer (µg/mL) (0.1 [0 to 0.3] vs 0.4 [0.2 to 0.5], p <0.001), protein S antigen (%) (1.3 [-5.9 to 8.4] vs -20.8 [-27.8 to -13.8], p <0.001), and sex hormone-binding globulin (nmol/L) (44 [24.6 to 63.3] vs 156.8 [137.9 to 175.7], p <0.001). No significant between-group differences were observed in changes in INR or factor VIIIa. ***Conclusion***: E4/DRSP had a less pronounced effect on coagulation-related biomarkers than EE/DRSP in women with PMOS. These findings suggest that E4/DRSP may offer a more favorable coagulation profile and may help inform COCs selection in this population.

THE OOCYTE CYCLE-BJEKOVIC

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Problem statement: The existing definition of the menstrual cycle marks its start on the first day of menstrual bleeding, dividing it into follicular, ovulatory, and luteal phases. However, from the perspective of the proposed model, traditional phases are not true phases, but merely events occurring on the ovary. The question arises whether cycle onset can truly be marked by bleeding, drawing an analogy: can summer`s start be the start of autumn? Menstrual bleeding is thus excluded as a distinct phase. By redefining the essence of the 28-day cycle, a new definition, new phases, and a new beginning are established, centered on the birth and life path of the oocyte through the female genital tract. ***Methods***: The standard definition was analyzed and compared with the proposed model. An analogy was established between four basic natural elements (sun, air, earth, water), four topographical organ systems (head, lungs, abdomen, heart), and four anatomical segments of the female genital tract (ovaries, fallopian tubes, uterus, vagino-vulvar segment). Tracking the exact chronology and

location of the oocyte defined four phases: Ovarian, Tubal, Uterine, and Vulvo-Vaginal (menstrual bleeding phase). ***Results***: The oocyte cycle begins with the Ovarian phase upon appearance of the dominant follicle on day 8 of the traditional cycle, lasting 7 days. On day 8 of the oocyte cycle, the Tubal phase starts with ovulation—representing the release of the oocyte—and lasts 7 days. On day 15, the Uterine phase begins as the oocyte arrives in the uterus, lasting 7 days. Finally, on day 22, accompanied by endometrial shedding, the oocyte passes into the vagina, initiating the 7-day Vulvo-Vaginal phase. This model precisely divides the 28-day cycle into four equal seven-day intervals based on oocyte location and transit. ***Conclusion***: The "Oocyte Cycle" model shifts focus from menstrual bleeding to the primary biological agent of reproduction—the oocyte. Connecting natural elements, organ systems, and anatomical structures of the genital tract establishes a clear theoretical and chronological framework. Defining four new phases with precise temporal boundaries provides a new definition of the 28-day cycle, opening space for reconceptualizing reproductive chronology in medical science.

PREMATURE OVARIAN INSUFFICIENCY: ROLE OF MITOCHONDRIAL FATTY ACID METABOLISM IN FOLLICULAR AND OOCYTE DYNAMICS

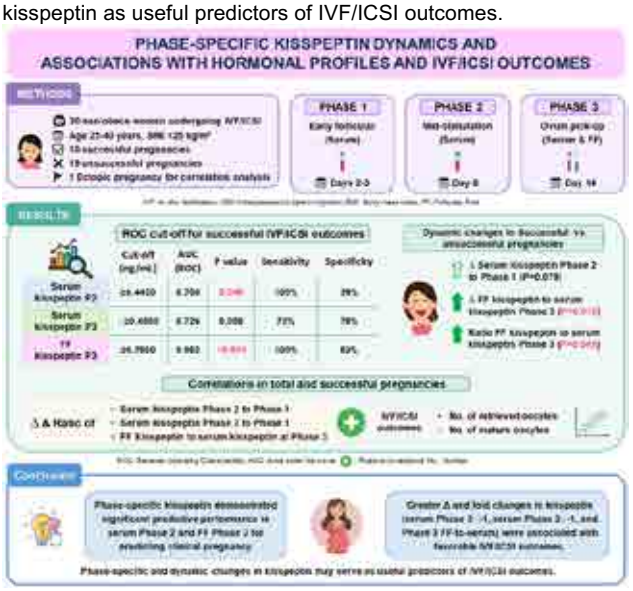
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Problem statement: Premature Ovarian Insufficiency (POI) refers to the early cessation of ovarian function, occurring before the age of 40. The etiology of POI is highly heterogeneous and mostly remains idiopathic. Folliculogenesis demand high levels of ATP to support their growth and maturation, which is primarily generated through the β-oxidation of fatty acids facilitated by the mitochondrial fatty acid shuttle (MFAS). Mitochondria and endoplasmic reticulum (ER) interact with each other thereby regulating energy production, calcium signaling, and lipid metabolism essential for folliculogenesis. ***Methods***: This study included Idiopathic POI patients (n=30) and fertile females (n=30). Exome sequencing, mitochondrial proteins, ER stress, Bcl2 and β-oxidation markers were assessed. For in vivo validation, C57BL/6 female mice were treated with mitochondrial inhibitors. Post-treatment analysis of ovaries and serum FSH, AMH levels were quantified. Mice superovulated and oocytes extracted and treated with MFAS inhibitors followed by assessment of ER stress and activation. ***Results***: WES revealed multiple alterations in genes involved in MFAS and mitochondrial metabolism. POI patients showed altered expression of MFAS and ER stress markers with reduced ATP levels, increased long chain fatty acids, increased Bcl2 levels compared to controls. MFAS Inhibitor-treated mice demonstrated reduced body weight, ovarian shrinkage, decreased follicle count, increased atresia, and histopathological changes in liver, kidney, and spleen. Elevated serum FSH & AMH confirmed induction of POI phenotype in mice. MFAS inhibition in oocytes caused ER Stress that leads to failure of oocyte activation highlighting the deranged calcium homeostasis in oocytes. ***Conclusion***: Experimental findings indicate MFAS dysfunction as a key mechanism driving premature ovarian insufficiency.

PHASE-SPECIFIC KISSPEPTIN PREDICTIVE PERFORMANCE, DYNAMIC CHANGES, AND ASSOCIATIONS WITH IVF/ICSI OUTCOMES

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Problem statement: Kisspeptin is a key regulator of female reproduction and ovarian function. However, phase-specific kisspeptin predictive performance, dynamic kisspeptin changes during treatment phases, and their relationships with IVF/ICSI outcomes remain unclear. This study aimed to determine phase-specific kisspeptin cut-offs for identifying clinical pregnancy, evaluate absolute (Δ) and fold changes in kisspeptin across IVF/ICSI treatment phases, and examine associations with IVF/ICSI outcomes. ***Methods***: This prospective observational study enrolled 30 non-obese women (25–40 years; BMI <25 kg/m²) undergoing IVF/ICSI treatment. Serum kisspeptin and reproductive hormones were measured during the early follicular phase (Phase 1), mid-stimulation (Phase 2), and ovum pick-up (Phase 3), with follicular fluid (FF) obtained at Phase 3. Clinical pregnancy was confirmed by ultrasonographic detection of a fetal heartbeat approximately 42 days of the menstrual cycle. Ten participants achieved clinical pregnancy, 19 did not, and one ectopic pregnancy was included for correlation analyses. ***Results***: Kisspeptin demonstrated phase-specific discriminatory performance for clinical pregnancy, reaching statistical significance in serum at Phase 2 (cut-off ≥0.4450 ng/mL; AUC=0.700, P=0.046) and FF at Phase 3 (cut-off ≥0.7900 ng/mL; AUC=0.962, P<0.001), with a trend toward significance in serum at Phase 3 (cut-off ≥0.4865 ng/mL; AUC=0.726, P=0.058). Women with clinical pregnancy showed a trend toward greater absolute serum changes between Phases 2 and 1 (P=0.079), as well as significantly greater absolute (P=0.015) and fold (P=0.045) FF-to-serum changes at Phase 3 compared with women without clinical pregnancy. In the total cohort and/or women with clinical pregnancy, but not in women without clinical pregnancy, absolute and fold changes between serum Phases 2 and 1, serum Phases 3 and 1, and FF and serum at Phase 3 were associated with IVF/ICSI outcomes, including the numbers of retrieved and mature oocytes. ***Conclusion***: Phase-specific kisspeptin demonstrated significant predictive performance in serum at Phase 2 and FF at Phase 3, providing clinically relevant cut-offs for identifying clinical pregnancy. Furthermore, greater absolute and fold changes in kisspeptin (serum Phase 2 to Phase 1, serum Phase 3 to Phase 1, and Phase 3 FF-to-serum) were associated with favorable IVF/ICSI outcomes, supporting phase-specific and dynamic changes in kisspeptin as useful predictors of IVF/ICSI outcomes.

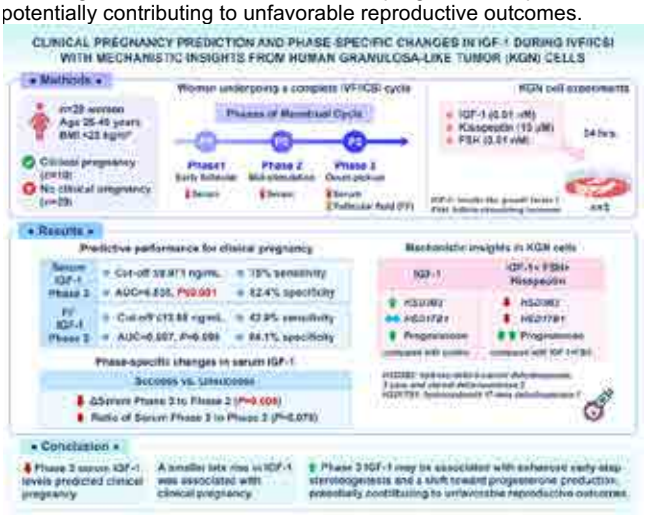


CLINICAL PREGNANCY PREDICTION AND PHASE-SPECIFIC CHANGES IN IGF-1 DURING IVF/ICSI WITH MECHANISTIC INSIGHTS FROM HUMAN GRANULOSA-LIKE TUMOR (KGN) CELLS

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Problem statement: Insulin-like growth factor 1 (IGF-1) is an important regulator of ovarian follicular development and steroidogenesis. However, its predictive value for IVF/ICSI clinical pregnancy, phase-specific absolute (Δ) and fold changes during treatment phases, and direct steroidogenic effects in KGN cells remain unclear. This study evaluated the predictive performance of serum and follicular fluid (FF) IGF-1 for clinical pregnancy, characterized phase-specific absolute and fold changes, and investigated the direct effects of IGF-1 on steroidogenesis in KGN cells. ***Methods***: Twenty-nine non-obese women (25–40 years; BMI <25 kg/m²) undergoing IVF/ICSI were prospectively enrolled. IGF-1 concentrations were measured in serum during the early follicular phase (Phase 1), mid-stimulation (Phase 2), and ovum pick-up (Phase 3), and in FF at Phase 3. Clinical pregnancy was defined by the presence of a fetal heartbeat at cycle day 42. Ten women achieved clinical pregnancy and 19 did not. Receiver operating characteristic analysis evaluated the predictive performance of

serum and FF IGF-1. Phase-specific absolute and fold changes were compared between groups. KGN cells (n=3) were treated with IGF-1 (0.01 nM) with or without FSH (0.01 nM) and kisspeptin (10 μM) for 24 hours. ***Results***: IGF-1 demonstrated significant discriminatory performance for clinical pregnancy in serum at Phase 3 (cut-off ≤9.971 ng/mL; AUC=0.838, *P*<0.001) and showed discriminatory potential in FF at Phase 3 (cut-off ≤13.580 ng/mL; AUC=0.697, *P*=0.098). Women with clinical pregnancy exhibited significantly lower serum IGF-1 absolute changes between Phase 3 and Phase 2 (*P*=0.005) and a trend toward lower serum IGF-1 fold changes (Phase 3/Phase 2) (*P*=0.075) than women without clinical pregnancy. In KGN cells, IGF-1 increased *HSD3B2* mRNA expression and progesterone production, whereas kisspeptin further increased progesterone secretion but decreased *HSD3B2* and *HSD17B1* mRNA expression compared with the FSH+IGF-1 group. ***Conclusion***: Lower Phase 3 serum IGF-1 levels predicted clinical pregnancy following IVF/ICSI, and a smaller late rise in IGF-1, reflected by lower Phase 3–Phase 2 absolute and fold changes, was associated with clinical pregnancy. Mechanistically, elevated Phase 3 IGF-1 may be associated with enhanced early-step steroidogenesis and a shift toward progesterone production, potentially contributing to unfavorable reproductive outcomes.



ANTINUCLEAR FACTOR AS A PREDICTOR OF ADVERSE REPRODUCTIVE OUTOCOMES

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Problem statement: The incidence of autoimmune disorders is increasing worldwide, and antinuclear antibodies (ANA) may persist for years without clinical autoimmune disease. Whether ANA carriage adversely affects reproductive potential and pregnancy outcomes and whether extracorporeal removal (selective immunoadsorption) can improve these outcomes remains unclear. We aimed to assess the association between antinuclear factor (ANF) and reproductive outcomes and to evaluate a pilot experience of selective immunoadsorption in ANF-positive patients with reproductive failures. ***Methods***: Retrospective cohort study of 120 patients preparing for natural conception or assisted reproductive technologies at the D.O. Research Institute of Obstetrics, Gynecology and Reproductology (2024 - 2025). ANF prevalence and rates of infertility, recurrent pregnancy loss, IVF failure and missed miscarriage were analysed according to ANF titre. Within this cohort, ANF-positive patients with recurrent reproductive failures (titres >1: 1280) were offered selective immunoadsorption (five sessions, performed twice weekly); ANA titres and safety parameters (total protein, albumin, ALT, AST, fibrinogen) were reassessed after treatment. ***Results***: ANF were detected in 62.5% of patients (titre 1:100 in 16%, 1:160 in 33%, 1:320 in 22%, 1:640 in 17%, 1:1280 in 12%). Among ANF-positive patients, infertility was reported in 33% (72% primary), recurrent pregnancy loss in 24%, and IVF failure in 32% (71% after ≥ 3 failed cycles); missed miscarriage occurred in 48% (88% in the first trimester). Eight ANF-positive patients (titre 1:1280) completed a full selective immunoadsorption course. ANA became negative in seven fully treated patients, with no biochemical or haemodynamic complications; in one patient the titre remained unchanged; four patients achieved clinical pregnancy after embryo transfer and one is preparing for frozen embryo transfer. ***Conclusion***: ANF is associated with adverse reproductive outcomes and may serve as a predictor of reproductive failure. Preconception selective immunoadsorption normalised ANA titres and was followed by pregnancy achievement in this small pilot cohort, supporting further prospective controlled evaluation as a personalised adjunct in reproductive medicine.

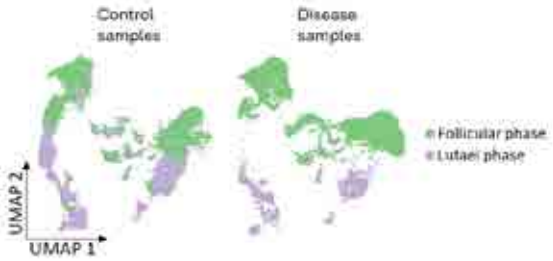
Disclosure of interest: *None declared*

GENETICS & GENOMICS

MAKING SINGLE-NUCLEUS TRANSCRIPTOMICS CLINICALLY FEASIBLE FOR HUMAN ENDOMETRIAL RESEARCH: A SCALABLE WORKFLOW DEVELOPED FOR THE README STUDY

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Problem statement: Single-nucleus RNA sequencing (snRNA-seq) has become a powerful tool for cell-resolved characterization of the human endometrium. However, its implementation in prospective clinical studies remains limited by the need for immediate fresh tissue processing, the small size and heterogeneity of endometrial biopsies, and substantial pre-analytical variability. To overcome these limitations, we established a scalable snRNA-seq workflow for frozen endometrial biopsies within the prospective REAdME (Receptivity of Endometrium in Adenomyosis, uterine Myomas and Endometriosis) study. ***Methods***: The workflow was designed for cryopreserved selective hysteroscopic biopsies, enabling deferred centralized processing and high-throughput batch analysis. Technical optimization was performed using frozen endometrial biopsies from patients with Asherman`s syndrome and subsequently implemented in the prospective REAdME study, including frozen biopsies from healthy controls and women with adenomyosis, endometriosis, and uterine fibroids. The workflow comprised mechanical nuclei isolation using a sucrose-based buffer, simple wash, and CellPlex oligonucleotide labelling for multiplexed 10x Genomics sequencing. ***Results***: The optimized workflow enabled robust and reproducible generation of sequencing-compatible nuclei from frozen endometrial biopsies across structurally diverse tissues, including highly fibrotic samples. Unlike conventional enzymatic dissociation, which yielded only approximately 5,000 viable cells/g from fibrotic endometrium, the nuclei-based workflow proved suitable for transcriptomic analysis of all biopsy types. Biological validation confirmed preservation of expected endometrial cellular composition together with disease- and menstrual cycle-associated transcriptional states (Figure 1).



The workflow was applied to samples from healthy endometrium, adenomyosis, endometriosis, and uterine fibroids to demonstrate robust performance across frozen endometrial biopsies. Multiplexing enabled centralized processing independent of biopsy collection, minimized inter-run technical variability, increased laboratory throughput, and reduced the estimated sequencing cost per sample from approximately €4,000 to €200. ***Conclusion***: The developed workflow enables standardized, high-throughput snRNA-seq analysis of frozen clinical endometrial biopsies, overcoming key technical and logistical barriers that have limited the application of single-cell transcriptomics in prospective clinical studies. Its robustness, scalability, and cost-effectiveness establish a practical platform for large-scale translational research of the human endometrium.

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ORAL PRESENTATION SESSION 13
FETOMATERNAL MEDICINE: CASE STUDY/REPORT | OTHER

CASE STUDY/REPORT

SYMPTOMATIC INTRACRANIAL TUMOR IN PREGNANCY: A CASE SERIES

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Problem: Intracranial tumors diagnosed during pregnancy are uncommon but present substantial diagnostic and therapeutic challenges. Physiologic changes of pregnancy, including increased circulating blood volume, fluid retention, and hormonal alterations, may contribute to tumor enlargement, peritumoral edema, and worsening neurologic symptoms. Management requires balancing timely maternal evaluation and treatment with potential risks to the fetus. ***Methods/Results***: We describe a series of pregnant patients who presented with symptomatic intracranial tumors at a tertiary referral hospital (Philippine General Hospital). Clinical manifestations varied according to tumor location and included headache, visual disturbances, focal neurologic deficits, seizures, and/or signs of increased intracranial pressure. Neuroimaging established the presence and extent of the intracranial lesions, while subsequent multidisciplinary evaluation guided individualized management. The cases demonstrated differing clinical courses and management strategies, underscoring the heterogeneity of intracranial tumors encountered during pregnancy. ***Conclusion***: Symptomatic intracranial tumors in pregnancy require prompt recognition and individualized, multidisciplinary management. Neurologic symptoms that are persistent, progressive, or atypical for pregnancy warrant thorough evaluation and appropriate neuroimaging. Management should prioritize maternal neurologic safety while considering gestational age, fetal well-being, tumor biology, and the urgency of neurosurgical or oncologic treatment. This case series highlights the importance of coordinated decision-making in achieving favorable maternal and perinatal outcomes in these uncommon but potentially life-threatening conditions.

KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) TOWARD ANTENATAL EXERCISE AMONG PREGNANT WOMEN IN A TERTIARY HOSPITAL IN THE PHILIPPINES: A CROSS-SECTIONAL STUDY

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Problem statement: Antenatal exercise is a safe, evidence-based intervention recommended by international obstetric societies to improve maternal and perinatal outcomes. However, its integration into routine antenatal care remains inconsistent, particularly in low-middle countries. This study aimed to evaluate the knowledge, attitudes, and practices (KAP) toward antenatal exercise among pregnant women in a tertiary hospital in the Philippines and to identify key determinants influencing prenatal physical activity. ***Methods***: A cross-sectional study was conducted among 186 pregnant women receiving antenatal care at a tertiary hospital from June 2023 to June 2024. A validated, self-administered questionnaire assessed KAP domains. Associations between clinico-demographic factors and outcomes were analyzed using logistic regression, with statistical significance set at $p<0.05$. ***Results***: Only 50% of participants demonstrated adequate knowledge of antenatal exercise, with an overall mean score of 46.52%. Although 68.89% reported positive attitudes, only 45.6% engaged in regular antenatal exercise, demonstrating a substantial knowledge–practice gap. The most commonly performed activities were breathing, relaxation, and back care exercises, while pelvic floor and aerobic exercises were least practiced despite established benefits in labor and postpartum recovery. Key barriers included lack of information (66.34%), concerns regarding fetal safety (60.4%), and maternal fatigue (55.45%). On multivariate analysis, advancing gestational age was the strongest independent predictor of favorable outcomes, with women in the third trimester more likely to demonstrate adequate knowledge (AOR 3.49, 95% CI 1.9–6.4), positive attitudes (AOR 4.09, 95% CI 1.7–9.8), and active practice (AOR 3.51, 95% CI 1.9–6.5). ***Conclusion***: Despite generally favorable perceptions, antenatal exercise remains underutilized. The observed knowledge–practice gap highlights missed opportunities in early antenatal care. Integrating structured counseling and standardized exercise guidance into routine prenatal visits - particularly in early pregnancy - may significantly improve maternal health outcomes and align clinical practice with international recommendations.

INCIDENTAL LOW GRADE MUCINOUS NEOPLASM OF APPENDIX DURING CESAREAN SECTION: A CASE REPORT

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Low-grade appendiceal mucinous neoplasm (AMN) is a rare disease with an incidence rate of 0.2-0.4% in all appendectomy specimens. AMNs are difficult to diagnose preoperatively due to the lack of characteristic symptoms. This is a case of a preeclamptic 30 year old, gravida 4 para 1 (1021), Filipino, with no symptoms prior pregnancy who underwent emergency low segment cesarean section at 38 weeks 3 days of gestation because of deteriorating maternal health status. A live, male neonate weighing 2670 grams and 52 centimeters in length was delivered uneventfully with an APGAR score of 9 becoming 9. During routine examination of the pelvic organs at the time of the cesarean section, no abnormalities were present in the uterus or the bilateral adnexa. An incidental finding of a markedly edematous and dilated appendix was noted. It was converted into a sausage-like shape structure and firm on palpation. The patient was subsequently referred to general surgery and underwent appendectomy. Final histopathology revealed a low-grade appendiceal mucinous neoplasm with all surgical margins negative for tumor. Given the findings of this case report, we propose that not only should routine exploration of the pelvic organs be done but, also an examination of the pelvic abdominal viscera including the appendix as it provides an opportunity to diagnose occult tumors such as AMN.

COMPARISON OF OUTCOMES BETWEEN ULTRA-FAST EMBRYO VITRIFICATION–WARMING AND ULTRA-FAST VITRIFICATION–STANDART WARMING PROTOCOLS

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Cryopreservation and warming are critical steps in assisted reproductive technologies. Conventional slow-freezing may negatively affect embryo viability and pregnancy outcomes due to intracellular ice crystal formation and osmotic stress. Vitrification, developed to overcome these limitations, relies on high concentrations of cryoprotectants and extremely rapid cooling to prevent ice formation. However, the efficiency of vitrification depends on the composition of solutions and on timing during both freezing and warming. This study aimed to compare survival, developmental competence, and pregnancy outcomes of embryos vitrified using an ultra-fast freezing system and subsequently warmed either with an ultra-fast (1-minute) or a 10-minute standard protocol.

OTHER

THE EFFECT OF MOTHERS` SELF-CARE CAPACITY IN THE POSTPARTUM PERIOD ON MATERNAL ATTACHMENT LEVEL AND BREASTFEEDING ATTITUDE

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Problem statement: This exploratory study aimed to examine the effect of postpartum mothers' self-care capacity on maternal attachment levels and breastfeeding attitudes. ***Methods***: The study sample consisted of 327 mothers who attended the Child Health and Diseases outpatient clinics at Selçuk University Faculty of Medicine Hospital for postpartum examination, treatment, and follow-up. Data were collected using a Personal Information Form, the Self-Care Capacity Scale (SCCS), the Maternal Attachment Scale (MAS), and the Breastfeeding Attitude Assessment Scale (BAAS). Statistical analyses were performed using IBM SPSS Statistics V26. Descriptive statistics, independent t-test, Kruskal-

Wallis variance analysis, Pearson correlation, and linear regression (enter model) were applied to evaluate relationships between variables and determine factors affecting maternal attachment and breastfeeding attitude. ***Results***: The mean age of participating mothers was 34.02±5.79 years, while spouses' mean age was 36.59±6.09 years. The average length of marriage was 11.96±6.29 years, the mean number of births was 2.24±1.06, and infants' mean age was 7.42±2.53 months. Mothers demonstrated good self-care capacity with an average SCCS score of 111.79±12.33. Maternal attachment levels were high (MAS: 101.59±3.79), and breastfeeding attitudes were also high (BAAS: 127.95±17.70). Significant differences were found between self-care capacity and maternal attachment ($p<0.001$), indicating that higher self-care strength was associated with stronger maternal attachment. Similarly, self-care capacity was significantly related to breastfeeding attitude ($p<0.001$), with mothers showing more positive breastfeeding attitudes as self-care levels increased. Correlation analysis revealed a weak positive relationship between maternal attachment and self-care capacity ($p<0.001$), and a moderate positive relationship between breastfeeding attitude and self-care capacity ($p<0.001$). Regression analysis showed that self-care capacity was a significant predictor of maternal attachment in the postpartum period ($B=0.122$, $p<0.001$). Additionally, breastfeeding attitude was strongly influenced by self-care capacity ($B=0.762$, $p<0.001$). ***Conclusion***: Self-care capacity is an important factor affecting both maternal attachment and breastfeeding attitudes in postpartum mothers. Midwives should monitor mothers' self-care practices during the postpartum period and provide individualized education and counseling to enhance self-care levels.

Keywords: *breastfeeding attitude; maternal attachment; postpartum period; self-care capacity.*

INDICATIONS FOR AMNIOCENTESIS IN A TERTIARY PRENATAL DIAGNOSIS CENTER IN 2025: A RETROSPECTIVE OBSERVATIONAL STUDY

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Problem statement: Amniocentesis is one of the main invasive procedures used in prenatal diagnosis (PND), allowing fetal genetic assessment and viral testing, among others. Characterizing local clinical practice is important to understand the current indications for this procedure and its diagnostic contribution in different clinical settings. ***Methods***: Among 167 pregnant women followed at the Prenatal Diagnosis Department of Hospital Fernando Fonseca – ULS Amadora-Sintra, for whom amniocentesis was proposed in 2025, 148 cases were included, after excluding fifteen women that ultimately declined the procedure, two that lost hospital follow-up, and in one case that amniocentesis could not be performed for technical reasons and fetal muscle biopsy was undertaken instead. Data collected included maternal age, obstetric history, relevant previous prenatal diagnosis findings, reason for referral to PND, type of genetic analysis performed, gestational age at the time of the procedure, amniocentesis results, and subsequent clinical management. ***Results***: The mean maternal age was 35.43 years, with a median of 37 years. The most frequent indication for amniocentesis was a positive first-trimester screening test, including combined and biochemical screening, accounting for 50 cases (33.8%). Advanced maternal age was the second most frequent indication, with 48 cases (32.4%), followed by the detection of fetal structural abnormalities in 39 cases (26.4%). A normal result was obtained in 132 cases. Among the 14 abnormal results, there were six cases of trisomy 21, three cases of trisomy 18, and two cases of heterozygous HBB variants, consistent with sickle cell trait. Three cases presented genomic abnormalities, including one fetus with a variant of uncertain significance in the COL11A gene in the context of early fetal growth restriction, and one fetus with a 4p15.3 deletion. In two cases, an etiological diagnosis could not be reached. ***Conclusion***: Advanced maternal age alone accounted for a considerable proportion of amniocenteses performed at our center, which may reflect limited access to non-invasive screening options, particularly Non-Invasive Prenatal Testing (NIPT). Genetic testing in the remaining cases allowed fetal pathology to be excluded or diagnosed, contributing to improved counseling and decision-making for couples in the current and future pregnancies.

ASSOCIATIONS BETWEEN PERCEIVED SOCIAL SUPPORT DURING PREGNANCY, PRENATAL ANXIETY, AND PREGNANCY ACCEPTANCE AMONG PREGNANT WOMEN

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Problem statement: Pregnancy is a critical period involving profound physical, psychological, and social changes. During this period, perceived social support enhances psychological well-being, facilitates maternal adaptation, and helps protect against adverse pregnancy outcomes, whereas inadequate support has been associated with increased pregnancy-related anxiety and poorer psychological adjustment. Acceptance of pregnancy, a key indicator of adaptation to both pregnancy and the maternal role, is closely linked to maternal mental health and the level of social support received. This study examined the relationships among perceived social support, pregnancy-related anxiety, and acceptance of pregnancy in pregnant women. ***Methods***: This cross-sectional, correlational study was conducted among 478 women in the second and third trimesters of pregnancy attending an antenatal outpatient clinic in Konya, Türkiye. Data were collected using a Personal Information Form, the Multidimensional Scale of Perceived Social Support (MSPSS), the Pregnancy-related Anxiety Scale (PrAS), and the Prenatal Self Evaluation Questionnaire–Acceptance of Pregnancy (PSEQ-AP). Descriptive statistics, Student's t-test, one-way ANOVA, and Pearson correlation analyses were performed. ***Results***: The mean age of the participants was 28.81 ± 5.17 years. The mean MSPSS, PrAS, and PSEQ-AP scores were 66.05 ± 17.45, 71.15 ± 14.02, and 42.87 ± 7.61, respectively. Perceived social support, pregnancy-related anxiety, and acceptance of pregnancy differed significantly according to several sociodemographic and obstetric characteristics ($p<0.05$). Perceived social support was moderately negatively correlated with pregnancy-related anxiety ($r=-0.368$, $p<0.001$) and moderately positively correlated with acceptance of pregnancy ($r=0.399$, $p<0.001$). In addition, pregnancy-related anxiety was moderately negatively correlated with acceptance of pregnancy ($r=-0.395$, $p<0.001$). ***Conclusion***: Perceived social support plays a key protective role in reducing pregnancy-related anxiety and promoting acceptance of pregnancy. Routine assessment of social support and psychosocial risk factors during antenatal care, together with early identification of women with low social support and timely referral to midwife-led counseling and childbirth education programs, may improve maternal mental health and facilitate targeted antenatal care interventions.

Keywords: *acceptance of pregnancy, anxiety, midwifery, pregnancy, prenatal care, social support*

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN CLIMATE CHANGE ANXIETY AND BREASTFEEDING ADAPTATION IN POSTPARTUM MOTHERS

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Problem statement: Climate change poses an increasing global public health threat yet its psychological impact on vulnerable populations, such as postpartum women, remains under-researched. The aim of this study was to determine the relationship between climate change anxiety and breastfeeding adaptation in postpartum mothers. ***Methods***: This descriptive and cross-sectional study was conducted at a public hospital. The targeted total sample size of 317 was determined using G*Power software. This interim analysis evaluated the preliminary data of 199 postpartum mothers. Data were collected via face-to-face interviews using a Personal Information Form, the Climate Change Women`s Anxiety Scale (18 items), and the Breastfeeding Adaptation Scale (27 items). Items 21, 22, and 23 of the breastfeeding scale were reverse-coded. Data evaluation was performed using the Shapiro-Wilk test, Kruskal-Wallis test, Spearman correlation analysis, and Simple Linear Regression. ***Results***: The mean age of the 199 participants was 29.73±6.07 years, with a mean number of births of 2.10±1.01. The mean total score of the Climate Change Anxiety Scale was 54.31±18.24, and the Breastfeeding Adaptation Scale was 104.03±14.09. Spearman correlation analysis revealed a statistically significant, weak positive relationship between climate change anxiety and breastfeeding adaptation ($rho = 0.179$, $p = 0.011$). However, simple linear regression analysis indicated that climate change anxiety was not a

significant predictor of breastfeeding adaptation (R^2 = 0.001, p = 0.685). Group comparisons showed that education level significantly affected both climate anxiety (p < 0.001) and breastfeeding adaptation scores (p = 0.001), whereas mode of delivery had no significant effect on either scale (p > 0.05).***Conclusion***: Preliminary findings indicated a weak positive correlation between climate change anxiety and breastfeeding adaptation, although climate anxiety alone was not a strong predictor of adaptation levels. Educational background emerged as a significant factor influencing both climate anxiety and breastfeeding practices. Providing individualized psychosocial support that considers the maternal educational and socioeconomic levels may be essential to improve breastfeeding outcomes and maternal well-being

CLINICAL OUTCOMES OF PATIENTS ON ENHANCED RECOVERY AFTER CESAREAN SECTION (ERAC) PROTOCOL VS CONVENTIONAL CARE IN A TERTIARY GOVERNMENT HOSPITAL: A RANDOMIZED CONTROLLED TRIAL

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Statement of the Problem: To compare the clinical outcomes, including Length of Hospital Stay (LOS) and functional recovery, of a modified Enhanced Recovery After Cesarean (ERAC) protocol versus conventional perioperative care among low-risk obstetric patients undergoing Cesarean Section (CS) in a Philippine tertiary government hospital. ***Methods***: This single-center Randomized Controlled Trial (RCT) was conducted from July 1 to September 30, 2025. Fifty eligible patients were consecutively recruited and randomized (n=25 per group). The ERAC protocol included limited fasting, multimodal non-opioid analgesia (Paracetamol + Ketorolac), early urinary catheter removal early ambulation, compression stockings, chlorhexidine skin preparation, and xylitol chewing gum. The primary outcome was LOS, and key secondary outcomes were Ambulation Time and the incidence of postoperative adverse events. Analysis followed the Intention-to-Treat (ITT) principle, primarily using the Mann-Whitney U test and Fisher`s exact test. ***Results***: All 50 participants completed the study. Groups were comparable at baseline except for a slightly higher BMI in the ERAC group (p=0.0218). The ERAC protocol demonstrated highly significant superiority:
- Length of Hospital Stay (LOS): Median LOS was significantly shorter in the ERAC group (2.0 days [IQR 2.0-2.0]) compared to the Conventional Care group (3.0 days [IQR 3.0-3.0], p<0.0001).
- Ambulation Time: Median time to first ambulation was significantly faster in the ERAC group (0.38 days [≈9.0 hours]) versus the Conventional Care group (0.75 days [≈18.0 hours], p<0.0001)
- Morbidity: The incidence of Severe Pain (VAS >7) was dramatically lower in the ERAC group (8.0%) compared to the Conventional Care group (64.0%, p<0.0001). General Headache incidence was also significantly reduced (0.0% vs. 32.0%, p=0.004). Subgroup analysis confirmed these benefits for both elective and emergency CS cases.
Conclusion: The implementation of the modified ERAC protocol safely and significantly reduced LOS by one day and accelerated functional recovery while substantially decreasing severe postoperative pain and headache incidence. This evidence strongly supports the adoption and institutionalization of ERAC protocols in Philippine tertiary hospitals to improve maternal outcomes and healthcare efficiency.

NFKB1 MEDIATES PM2.5 EXPOSURE-INDUCED CONGENITAL HEART DISEASE VIA REGULATING CARDIOMYOCYTE APOPTOSIS

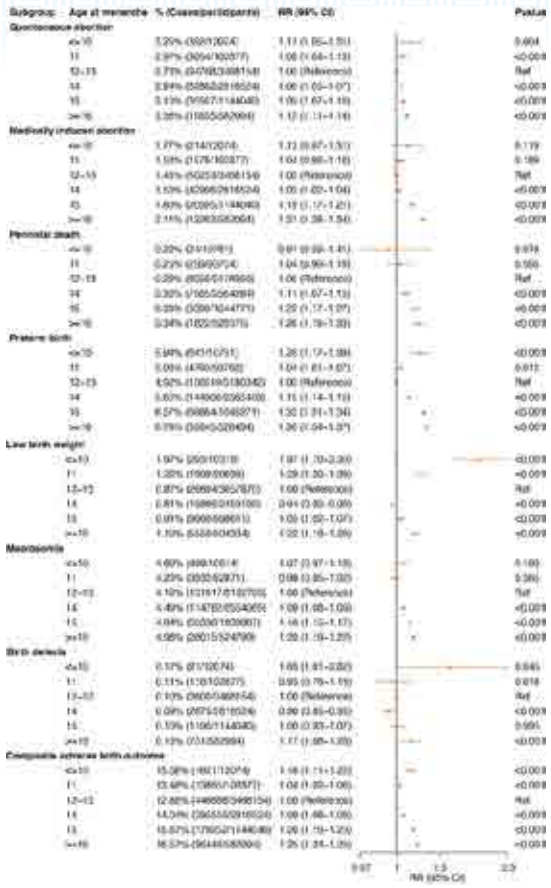
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Objective: This study sought to identify key molecules and underlying mechanisms linking fine particulate matter (PM2.5) exposure to congenital heart disease (CHD), by combining network toxicology, two-sample Mendelian randomization (MR), molecular simulation approaches, and experimental validation. ***Methods***: Target genes for PM2.5-bound toxic constituents and CHD-associated genes were retrieved from public databases. Overlapping targets were subjected to PPI network construction, together with GO and KEGG enrichment analyses to screen hub genes. Two-sample MR was performed to evaluate potential causal relationships. Molecular docking and 100 ns molecular dynamics simulations were used to characterize pollutant-NFKB1 binding. Functional validation was carried out using NFKB1-silenced H9C2 cardiomyocytes in vitro and a mouse model of maternal PM2.5 exposure in vivo. ***Results***: In total, 1040 PM2.5-related genes and 2116 CHD-related genes were retrieved, with 245 overlapping targets identified. These genes were enriched in oxidative stress, inflammatory responses, apoptosis, cardiac morphogenesis, as well as the MAPK, TNF, IL-17 and HIF-1 signaling pathways, and 20 hub genes were prioritized. MR analyses showed that genetically elevated NFKB1 expression was associated with higher CHD risk (OR=1.238, 95% CI: 1.137–1.348, $P=8.50\times10^{-7}$), with no notable heterogeneity or horizontal pleiotropy. The BaP-Cd^{2+} complex formed a stable complex with NFKB1, with a binding energy of −6.9 kcal/mol. PM2.5 treatment increased levels of NFKB1, BAX and cleaved caspase-3 while lowering BCL-2 abundance and promoting apoptosis in H9C2 cells; NFKB1 knockdown rescued these phenotypes. In vivo, maternal PM2.5 exposure increased cardiac NFKB1 in offspring, accompanied by myocardial morphological abnormalities. ***Conclusion***: NFKB1 acts as a critical molecular mediator connecting PM2.5 exposure and CHD susceptibility. It contributes to PM2.5-driven cardiomyocyte apoptosis and fetal cardiac injury. These findings provide new mechanistic insights into PM2.5-mediated developmental cardiotoxicity.

AGE AT MENARCHE AND ADVERSE BIRTH OUTCOMES IN 8 MILLION CHINESE REPRODUCTIVE-AGE WOMEN: A NATIONWIDE COHORT STUDY

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Problem statement: Menarche is a marker of female reproductive maturation. Prior studies have shown that early menarche correlates with adverse neonatal outcomes among live births. However, the relationship between late menarche and adverse birth outcomes remains poorly understood. Therefore, a large-scale cohort study is needed to comprehensively evaluate the associations between age at menarche and adverse birth outcomes, including both live and non-live outcomes. ***Methods***: We conducted a retrospective cohort study of women who participated in the National Free Preconception Health Examination Project between January 1, 2013, and December 31, 2019. Participants aged 20-49 years who conceived a singleton pregnancy within one year after the preconception examination were included. Log-binomial regression models were applied to estimate relative risks. ***Results***: A total of 8,125,763 women were included in the analysis. The majority experienced menarche at 12–13 years (42.68%), followed by 14 (34.66%), 15 (14.08%), and ≥16 (7.16%); only 0.15% had menarche at ≤10 years. Compared with women with menarche at 12–13 years, those with early (≤10 or 11 years) or late (14, 15, or ≥16 years) menarche had higher risks of spontaneous abortion, preterm birth, and composite adverse birth outcomes. Late menarche was additionally associated with higher risks of medically induced abortion, perinatal death, and macrosomia. Menarche at 14 years was associated with a lower risk of low birth weight (LBW), whereas early menarche or menarche at 15 or ≥16 years were associated with a higher risk of LBW. Regarding birth defects, menarche at 14 years was associated with a lower risk, while menarche at ≤10 or ≥16 years conferred a higher risk. ***Conclusion***: Both early and late menarche were associated with increased adverse birth outcomes, including spontaneous abortion, preterm birth and composite adverse birth outcomes. Early menarche was more strongly related to LBW and birth defects, whereas late menarche conferred greater risks of medically induced abortion, perinatal death, and macrosomia. These findings underscore the need for age-at-menarche-specific prenatal monitoring strategies.
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THE RELATIONSHIP BETWEEN PRIMIPAROUS PREGNANT WOMEN'S PERCEPTIONS OF SPOUSAL SUPPORT AND THEIR READINESS FOR HYGIENIC NEWBORN CARE

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Problem statement: This study was conducted to determine the relationship between the perceived partner support of primiparous pregnant women and their level of readiness for the hygienic care of the newborn. ***Methods***: This cross-sectional descriptive study was conducted with 235 primiparous pregnant women attending the obstetrics and gynecology outpatient clinics of a hospital in southeastern Türkiye between August 2024 and July 2025. Data were collected using the Descriptive Information Form, the Perceived Spousal Support During Pregnancy Scale, and the Pregnant Women's Readiness for Hygienic Newborn Care Scale. Descriptive statistics, Pearson correlation analysis, and hierarchical multiple linear regression analysis were used to analyze the data. ***Results***: The mean age of the pregnant women was 24.86±4.38 years, and the mean gestational age was 34.62±3.57 weeks. Significant differences in perceived spousal support were found according to educational level, employment status, and whether the pregnancy was planned ($p<0.05$). A significant positive correlation was found between perceived spousal support and readiness for hygienic newborn care ($r=0.196$; $p=0.002$). The cognitive ($r=0.201$; $p=0.002$), emotional ($r=0.153$; $p=0.019$), and financial support ($r=0.177$; $p=0.006$) subscales were also positively correlated with readiness. Regression analysis showed that perceived spousal support was a significant positive predictor of readiness for hygienic newborn care after controlling for certain variables ($\beta = 0.171$; $p = 0.013$). ***Conclusion***: Higher levels of perceived spousal support among primiparous pregnant women were associated with greater readiness for hygienic newborn care. Involving spouses in education and counseling during prenatal care may support pregnant women's preparation for caring for their newborns.
Keywords: *Pregnancy, Spousal Support, Primiparous Pregnant Women, Newborn, Hygienic Care*

INTRAOBSERVER AND INTEROBSERVER VARIABILITY IN CARDIOTOCOGRAM INTERPRETATIONS AMONG OBSTETRICS AND GYNECOLOGY RESIDENTS AND FELLOWS-IN-TRAINING IN A TERTIARY HOSPITAL IN DAVAO CITY

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Problem statement: Cardiotocography (CTG) is widely used for intrapartum fetal surveillance; however, interpretation remains subjective despite standardized classification by the International Federation of Gynecology and Obstetrics (FIGO). Observer variability may influence clinical decision-making and obstetric outcomes. This study evaluated intraobserver and interobserver agreement in CTG interpretation among Obstetrics and Gynecology residents and fellows-in-training at a tertiary teaching hospital in Davao City, Philippines. ***Methods***: A prospective repeated-measures observational study was conducted among 20 Obstetrics and Gynecology residents and fellows-in-training. Participants independently interpreted the same set of de-identified CTG tracings on two occasions separated by a four-week washout period using the FIGO classification system. Interobserver agreement was assessed using Fleiss` kappa, whereas intraobserver agreement was evaluated using Cohen`s kappa. Multivariable logistic regression and correlation analyses were performed to identify factors associated with observer consistency. ***Results***: Overall interobserver agreement was moderate (Fleiss` $\kappa = 0.558$). Agreement varied across individual tracings, with higher concordance for clearly normal or pathological tracings and lower agreement for equivocal patterns. Intraobserver agreement was generally high, with 11 participants demonstrating almost perfect agreement, four substantial agreement, four moderate agreement, and one fair agreement. Intraobserver agreement exceeded interobserver agreement across all CTG parameters. Professional designation was the only significant predictor of intraobserver consistency, with fellows demonstrating greater consistency than residents. Age, years of clinical experience, and frequency of CTG interpretation were not significantly associated with observer agreement. ***Conclusion***: CTG interpretation demonstrated moderate interobserver but generally high intraobserver agreement, indicating that clinicians were more consistent with their own interpretations than with those of their peers. Greater interpretive consistency among fellows suggests that advanced training improves reliability, supporting continued competency-based CTG education, standardized calibration exercises, and multidisciplinary review to enhance consistency in fetal surveillance and obstetric decision making.
Disclosure of interest: *The authors declare no conflicts of interest.*

THE RELATIONSHIP BETWEEN BIRTH HEALTH BELIEFS AND MODE OF DELIVERY PREFERENCES AMONG NULLIPAROUS PREGNANT WOMEN

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Problem statement: Birth-related health beliefs may be associated with women's preferences for mode of delivery; however, evidence on this relationship among nulliparous pregnant women remains limited. This study aimed to examine the relationship between birth health beliefs and mode of delivery preferences among nulliparous pregnant women. ***Methods***: This cross-sectional study included 336 nulliparous pregnant women with a mean gestational age of 27.57±7.84 weeks. Data were collected face-to-face from pregnant women attending family health centers. The personal information form, the Birth Health Belief Scale (BHBS), and the Pregnant Women's Preference of Mode of Delivery Questionnaire (PPMDQ) were used. Higher PPMDQ scores indicate a stronger preference for vaginal birth. Descriptive statistics, independent-samples t test, one-way analysis of variance, Pearson correlation analysis, and hierarchical multiple linear regression were performed. Statistical significance was set at $p<0.05$. ***Results***: The mean age of participants was 27.00±4.55

years, and the mean PPMDQ total score was 57.32±10.64. BHBS self-efficacy and motivation was strongly and positively correlated with PPMDQ total score (r=0.640, p<0.001), whereas perceived barriers showed a strong negative correlation (r=-0.637, p<0.001). Perceived benefits (r=0.540, p<0.001) and susceptibility (r=-0.518, p<0.001) showed moderate correlations, while perceived severity/caring showed a weak positive correlation (r=0.331, p<0.001). In the final hierarchical regression model, the included variables explained 54.9% of the variance in PPMDQ total score (R^2=0.549; adjusted R^2=0.534). Perceived barriers (β=-0.355, p<0.001), self-efficacy and motivation (β=0.305, p<0.001), perceived severity/caring (β=0.128, p=0.002), not working (β=0.084, p=0.033), and perceiving birth-related information as insufficient (β=-0.094, p=0.022) were independently associated with PPMDQ total score. ***Conclusion***: Birth health beliefs, particularly perceived barriers and self-efficacy/motivation, were independently associated with mode of delivery preferences among nulliparous pregnant women. Assessing these beliefs during antenatal care may help midwives, nurses, and obstetricians identify individual counseling needs and support informed birth preferences.

ANALYSIS OF CESAREAN SECTION RATES USING ROBSON TEN-GROUP CLASSIFICATION SYSTEM IN A TERTIARY TEACHING HOSPITAL IN DAVAO CITY

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Problem statement: Cesarean section (CS) is an essential obstetric intervention when medically indicated; however, increasing CS utilization requires evaluation of the obstetric populations contributing to institutional rates. The Robson Ten-Group Classification System (TGCS) provides a standardized framework for assessing CS utilization across defined obstetric populations. This study evaluated CS utilization and identified the Robson groups contributing most to the CS burden in a tertiary teaching and referral hospital in Davao City. ***Methods***: An analytical cross-sectional study was conducted at Southern Philippines Medical Center from January 1 to June 30, 2026. A total of 384 women who underwent CS were prospectively and consecutively recruited for interview and clinical record verification. Complete enumeration of institutional deliveries established the denominators for Robson analysis. Descriptive statistics were used to summarize participant characteristics and CS indications. Pearson chi-square test assessed the association between Robson group and mode of delivery, with Cramer`s V measuring effect size. Statistical significance was set at p<0.05. ***Results***: Among 384 CS participants, the leading indications were fetal distress (26.8%), previous CS (25.5%), cephalopelvic disproportion (18.0%), and malposition (12.2%). Of 6,578 institutional deliveries, 3,059 were CS, yielding an overall CS rate of 46.5%. Among 6,318 classifiable deliveries, Group 1 contributed the most CS deliveries (865; 28.3%), followed by Group 5 (721; 23.6%). Groups 1 and 5 together accounted for 51.9% of all institutional CS deliveries. Group-specific CS rates were highest in Groups 2 (100.0%), 9 (99.3%), and 5 (96.8%). Mode of delivery differed significantly among Robson groups ($\chi^2(9)$=1,587.46, p<0.001), with a substantial association (Cramer`s V=0.501). ***Conclusion***: Robson Groups 1 and 5 were the major contributors to institutional CS utilization, accounting for more than half of all CS deliveries. Focused audit of primary CS among nulliparous women and repeat CS among women with previous CS may identify opportunities for evidence-based optimization. Continued Robson-based monitoring, appropriate assessment for trial of labor after CS, and improved documentation are recommended to support safe and appropriate CS utilization.

INVESTIGATION OF THE PERCEPTIONS OF SUPPORT, STRESS LEVELS AND BREASTFEEDING SELF- EFFICACY OF WITH MOTHERS PRETERM INFANTS STAYING AT THE MOTHER HOTEL

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Problem statement: Mothers of preterm infants hospitalized in neonatal intensive care units (NICU) may perceive insufficient support due to the stress and uncertainty of the care process, which can negatively affect their breastfeeding self-efficacy. The aim of the study was to examine the perceptions of support, stress levels and breastfeeding self-efficacy of mothers with preterm infants staying at the mother hotel. ***Methods***: The descriptive and relational study was conducted between August 15 and November 30, 2024. The study was conducted with 251 mothers of premature infants in the NICU. Data were collected using the Multidimensional Scale of Perceived Social Support, the NICU Parental Stress Scale, and the Breastfeeding Self-Efficacy Scale for Mothers of Preterm Infants. Percentage, mean, t-test in independent groups, one-way analysis of variance, correlation, linear and logistic regression analysis were used to evaluate the data. ***Results***: The mean age of the mothers was 28.61±5.85, and the mean number of births was 2.51±1.63. The mean week of birth of the newborns was 32.01±3.62, and the mean birth weight was 1911.63±769.37 grams. The mean perceived social support scale score of the mothers was 38.81±17.24, the mean neonatal intensive care unit stress scale score was 75.22±22.43, and the mean breastfeeding self-efficacy scale score was 67.89±14.31. The neonatal intensive care unit stress score is a determinant of the breastfeeding self-efficacy score (r=0.269, r2adjusted=0.080, f(2,248)=11.909;p=0.000) and explained 8% of the variance in breastfeeding self-efficacy. In addition, age (R=0.131, R2adjusted=0.013, F(1,249)=4.361; p=0.000), number of births (R=0.245, R2adjusted=0.056, F(1,249)=15.951; p=0.000), number of children (R=0.239, R2adjusted=0.053, F(1,249)=15.081;p=0.000) are significant determinants of breastfeeding self-efficacy score. Breastfeeding self-efficacy score is 0.948 times higher in those whose babies are breast milk. ***Conclusion***: It was found that mothers` perception of social support was low, the presence of their babies in the NICU caused stress, breastfeeding self-efficacy was good and breastfeeding self-efficacy decreased as the stress of the mothers increased. Midwives should support NICU mothers by teaching stress-coping strategies, encouraging involvement in neonatal care, and providing up-to-date breastfeeding and milk-expression education.

Keywords: *Maternal hotel, Breastfeeding self-efficacy, Prematurity, Social support, Stress*
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CUMULATIVE OBSTETRICAL COMPLICATION RISK AND CLINICALLY DIAGNOSED POSTPARTUM DEPRESSION

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Problem: Obstetric complications are recognised risk factors for postpartum depression (PPD) however, the cumulative risk associated with co-occurring complications has not been fully explored. ***Background***: PPD is a common and significant maternal mental health condition influenced by hormonal, neurobiological, and psychosocial factors. ***Aim***: To examine the association between cumulative obstetric complication risk and clinically diagnosed (ICD-10) PPD. ***Methods***: A retrospective cohort design used electronic health record (EHR) data from a large database in the western US. Women aged 18–49 years who gave birth between 2017 and 2024 were included. Obstetric complications were grouped into five predefined clinical categories: hypertensive, haemorrhagic, metabolic, infection-related, and preterm-related complications. The cumulative complication risk score was based on the number of affected categories and categorised as 0, 1, 2, and ≥3. Multivariate logistic regression analyses were conducted to examine factors associated with PPD. ***Findings***: A total of 24,297 women were included, of whom 10.6% (n = 2,567) had clinically diagnosed PPD. Women with two and ≥3 complication categories had significantly higher odds of PPD, demonstrating a dose–response relationship between cumulative obstetric complication risk and PPD. ***Conclusion***: Cumulative obstetric complication risk and several sociodemographic and obstetric characteristics were independently associated with clinically diagnosed PPD. Given the observed association between PPD and cumulative obstetric complications, women with higher cumulative complication risk may represent a clinically vulnerable group for PPD. Integrating cumulative complication risk into routine perinatal risk assessment may support earlier identification and more targeted interventions for women at increased risk of PPD.

THE EFFECT OF MINDFULNESS-BASED BREASTFEEDING EDUCATION ON BREASTFEEDING OUTCOMES: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Despite the proven benefits of breastfeeding for both maternal and infant health, exclusive breastfeeding rates remain below desired levels both globally. Factors such as stress experienced by mothers in the postnatal period, difficulties in adapting, lack of access to qualified counselling or breastfeeding education, challenges encountered during the breastfeeding process, insufficient social support, and infant-related problems can reduce mothers` self-efficacy in breastfeeding and lead to early cessation of breastfeeding. While it is noted that mindfulness-based practices can positively influence the breastfeeding process, the impact of these programmes on breastfeeding awareness, self-efficacy, and breastfeeding rates has not yet been sufficiently researched. ***Methods***: This study is a randomized controlled trial conducted in Türkiye between February 2024 and April 2025. A total of 86 women in their first month postpartum who met the inclusion criteria were enrolled in the study. Participants were randomly assigned to either an intervention group (n=43) receiving mindfulness-based breastfeeding education or a control group (n=43) receiving standard care. The intervention group received a structured, mindfulness-based breastfeeding education program consisting of eight sessions over four weeks, with two sessions per week. Data were collected at three time points: baseline (1 month postpartum), after completion of the education program, and 4 months postpartum. ***Results***: There was no significant difference in breastfeeding awareness and self-efficacy scores between the two groups at baseline ($p > 0.05$). In the second and third measurements after the intervention, it was determined that the mean scores of the Breastfeeding Awareness Scale and Breastfeeding Self-Efficacy Scale of the mindful breastfeeding group were statistically significantly higher compared to the control group ($p < 0.001$). Exclusive breastfeeding rate at the fourth month was 76.7% in the awareness breastfeeding group and 9.3% in the control group ($p < 0.001$). In repeated measures analysis of variance, group ($F=19.587$), measurement ($F=12.443$) and group × measurement interaction ($F=28.692$) were found significant. ***Conclusion***: The results show that mindfulness-based breastfeeding education can be an effective intervention in improving breastfeeding behaviours. It may be recommended that midwives use mindfulness-based breastfeeding education in the postnatal period.

Keywords: *Breastfeeding, Exclusive breastfeeding, Mindfulness, Self-efficacy*
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WHAT DETERMINES CHILDBIRTH SELF-EFFICACY? THE ROLE OF MATERNAL HEALTH LITERACY AND ANTENATAL ANXIETY AMONG PREGNANT WOMEN

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Problem statement: Improving women`s confidence in vaginal birth is a global priority for reducing unnecessary cesarean sections and promoting positive birth experiences. Although antenatal anxiety has been widely recognized as an important determinant of childbirth self-efficacy, the contribution of maternal health literacy remains unclear. To our knowledge, this is one of the first studies to simultaneously evaluate maternal health literacy and antenatal anxiety as predictors of childbirth self-efficacy among pregnant women. Therefore, this study aimed to examine the independent effects of maternal health literacy and antenatal anxiety on childbirth self-efficacy. ***Methods***: A cross-sectional study was conducted among 192 pregnant women attending the antenatal outpatient clinic of a university hospital in Türkiye between January and June 2025. Data were collected using a sociodemographic questionnaire, the Maternal Health Literacy Inventory in Pregnancy, the Stirling Antenatal Anxiety Scale, and the Self-Efficacy Regarding Vaginal Birth Scale. Hierarchical linear regression analysis was performed to identify independent predictors of childbirth self-efficacy after adjustment for obstetric characteristics. ***Results***: Maternal health literacy was positively correlated with childbirth self-efficacy ($r = 0.273$, $p < 0.001$), whereas antenatal anxiety was negatively correlated ($r = −0.267$, $p < 0.001$). In the adjusted regression model, maternal health literacy remained an independent predictor of childbirth self-efficacy ($\beta = 0.184$, $p = 0.003$), whereas antenatal anxiety was no longer statistically significant ($\beta = −0.112$, $p = 0.074$). Women without chronic illness during pregnancy and those who had received prenatal education demonstrated significantly higher childbirth self-efficacy. The final model explained 35.6% of the variance in childbirth self-efficacy (Adjusted $R^2 = 33.5\%$). ***Conclusion***: Maternal health literacy appears to be a stronger determinant of childbirth self-efficacy than antenatal anxiety. Incorporating health literacy interventions into routine antenatal care may strengthen women`s confidence in vaginal birth and represent a promising strategy for reducing unnecessary cesarean births.

CHILDBIRTH EXPERIENCE AND SATISFACTION AMONG POSPARTUM WOMEN

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Problem statement: Childbirth is a complex and multidimensional experience, and less positive experiences may affect women's perception of maternity care. Understanding women's views can help healthcare professionals identify areas for improvement and promote respectful, individualized, woman-centred care. This study aimed to characterize childbirth experience and satisfaction among postpartum women. ***Methods***: A cross-sectional descriptive and analytical study was conducted with 103 postpartum women. Two questionnaires were excluded because of a high proportion of missing data (n=101). Childbirth experience was assessed using the Experience and Satisfaction with Childbirth Questionnaire (QESP). Descriptive statistics and non-parametric tests were performed ($p<0.05$). ***Results***: Participants had a mean age of 30.60 years (SD= 5.38). Among women with valid data, 69.5% had a vaginal birth, 18.9% an instrumental birth and 11.6% a caesarean section. Pregnancy complications were reported by 39.6% of participants. Satisfaction with professional care was high during labour (M= 3.42;SD= 0.75), birth (M= 3.50;SD= 0.67) and the immediate postpartum period (M= 3.37;SD= 0.76). The most favourable results concerned maternity facilities during birth (99.0%), professional care during birth (98.0%) and labour (97.0%), and early contact with the newborn (91.1%). In contrast, lower favourable responses were observed for perceived control during labour (35.0%) and birth (35.6%), breathing and relaxation techniques during labour (40.6%), and satisfaction with pain intensity during labour (42.6%). Women with pregnancy complications had significantly lower positive experience scores than those without complications (M=2.47 vs. 2.89; $p<0.001$). Positive experience also differed by mode of birth ($p= 0.006$), with higher scores after spontaneous vaginal birth (M= 2.84) than instrumental birth (M= 2.56) or caesarean section (M= 2.41). ***Conclusion***: Overall satisfaction with maternity care was high, particularly regarding professional care, facilities, and early contact with the newborn. However, perceived control, relaxation, and pain management emerged as key areas for improvement. Pregnancy complications and caesarean birth were associated with less positive childbirth experiences. These findings support individualized care, particularly in more complex pregnancies and births.

EVALUATION OF THE EFFECT OF PREGNANT WOMEN`S CHILDBIRTH ANXIETY ON CHILDBIRTH BELIEFS

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Problem statement: Anxiety levels in pregnant women are influenced by tangible factors such as labor pain, loss of control, and medical interventions, as well as uncertainties regarding maternal and infant health. However, intense and persistent anxiety about childbirth can be associated with negative psychological consequences and changes in childbirth preferences. This research was conducted to evaluate the effect of pregnant women`s childbirth anxiety on their birth belief. ***Methods***: The research was

conducted in descriptive type. Research; It was conducted with 237 pregnant women who applied to nine Family Health Centers in the city center affiliated to Erzincan Provincial Health Directorate between 01November 2023 and 30 April 2024. Research data; The Personal Information Form was collected through face-to-face interviews using the Oxford Birth Anxiety Scale and Birth Beliefs Scale. In evaluating the data; number, percentage, mean, t test, analysis of variance, Mann Whitney U analysis, Kruskal Wallis analysis, Pearson correlation analysis were used. ***Results***: The Oxford Birth Anxiety Scale total score was found to be 22.79±7.22. Pregnant women received 4.02±0.92 points from the natural process subscale and 3.42±0.81 points from the medical process subscale. It was found that there was a statistically significant, negative and low-level relationship between the pain and distress subscale score of the Oxford Birth Anxiety Scale and the medical process subscale score of the Birth Beliefs Scale. It was determined that there was no statistically significant relationship between the Oxford Birth Anxiety Scale total score and the Birth Beliefs Scale natural process subscale score and medical process subscale score. ***Conclusion***: As the pain and distress anxiety levels of pregnant women regarding birth increase, their belief that birth is a medical process increases.

Keywords: *Anxiety, birth, faith, midwife, pregnant*
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MANAGEMENT AND OUTCOMES IN WOMEN WITH PRETERM LABOR < 34 WEEKS WITH INTACT MEMBRANES AT SONGKLANAGARIND HOSPITAL

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Problem statement: Management of preterm labor (PTL) remains clinically challenging. Women with symptoms of PTL are frequently hospitalized and treated with antenatal corticosteroids (ACS) and tocolytics, yet many do not deliver within the optimal timeframe. Inaccurate diagnosis leads to unnecessary healthcare costs and potential adverse effects. This study aimed to explore the management, timing of antenatal corticosteroids (ACS) administration, and delivery outcomes between women with threatened PTL (TPTL) and established PTL (EPTL). ***Methods***: A retrospective study was conducted at a university hospital in Thailand. Medical records of women admitted for PTL symptoms before 34 weeks were reviewed to analyze clinical characteristics, treatments, and delivery outcomes. Participants were categorized into TPTL and EPTL (cervical dilatation <3 cm vs ≥3cm, respectively) for further analysis. ***Results***: The median GA at admission was 32 weeks. Tocolytics and ACS were administered significantly more frequently in the TPTL group than the EPTL group (93.39% vs. 33.33%, P < 0.001 for tocolysis; 95.10% vs. 75.00%, P < 0.001 for ACS) due to advanced labor at presentation in several EPTL cases. Women with EPTL delivered at a significantly lower median GA (30+6 vs. 38+2 weeks, P < 0.001) and had higher rates of delivery within 7 days (83.33% vs. 11.19%, P < 0.001) compared to the TPTL group. Among the 299 women receiving ACS, the median interval to delivery was 39 days (IQR: 32 days); optimal 7-day window delivery occurred in only 17.1% of cases. ***Conclusion***: Suboptimal timing of ACS administration remains a critical issue, characterized by early intervention in TPTL cases and delayed presentation in EPTL. Objective tools and improved patient education are warranted to refine diagnosis and optimize care.

THE EFFECT OF ONLINE PRENATAL YOGA-SUPPORTED CHILDBIRTH PREPARATION EDUCATION BASED ON SELF-EFFICACY THEORY ON FEAR OF CHILDBIRTH AND CHILDBIRTH SELF-EFFICACY: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Fear of childbirth (FOC) and low childbirth self-efficacy (CBSE) are significant challenges for primiparous women, often leading to adverse obstetric outcomes. While prenatal yoga and childbirth education are known interventions, there is a lack of research comparing Albert Bandura's Self-Efficacy Theory-based integrated prenatal yoga and education program against an active control group using a randomized controlled design. ***Methods***: This research evaluated the impact of an online, Albert Bandura's Self-Efficacy Theory-based prenatal yoga supported childbirth education program on FOC and CBSE among primiparous women. Employing a parallel-group, randomized controlled experimental design with a pretest–posttest framework, the study was conducted at a private obstetrics clinic in Ankara, Türkiye. The sample included 52 primiparous women at 28-32 weeks of gestation. The intervention group (n=26) received an online program combining theory-based childbirth preparation education and prenatal yoga. The active control group (n=26) received only the theory-based education program. Data were collected using the Wijma Delivery Expectancy/Experience Questionnaire Version A (WDEQ-A) and the short form of the Childbirth Self-Efficacy Inventory (CBSEI). Statistical analyses included chi-square tests, generalized linear models, and Robust Mixed ANOVA. ***Results***: Baseline sociodemographic characteristics and mean scores for WDEQ-A and CBSEI were similar between groups ($p>0.05$). Following the intervention, no statistically significant difference was found between the intervention and active control groups regarding WDEQ-A and CBSEI scores ($p>0.05$). However, a significant longitudinal decrease in FOC ($F = 23.968$; $p<0.001$; $\eta^2 = 0.193$) and a significant increase in CBSE ($F = 77.513$; $p<0.001$; $\eta^2 = 0.802$) were observed in both groups over time. ***Conclusion***: In conclusion, while both interventions led to significant longitudinal reductions in FOC and substantial improvements in CBSE, no statistically significant differences were observed between the groups for either variable. These findings suggest that both theory-based education and prenatal yoga supported programs are effective, warranting further research with diverse methodological designs and larger sample sizes to delineate their specific impacts further.

Disclosure of interest: *The authors declare no conflict of interest.*
Keywords: *childbirth self-efficacy, fear of childbirth, prenatal yoga, childbirth preparation, self-efficacy theory, theory-based intervention*

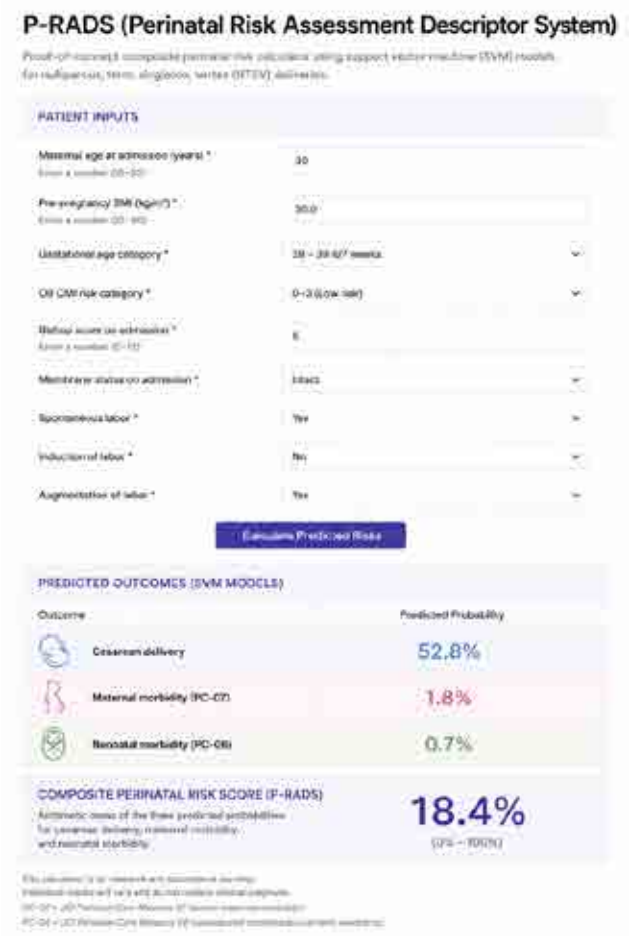
DEVELOPMENT AND TEMPORAL VALIDATION OF P-RADS: A PREDICTIVE RISK CALCULATOR FOR COMPOSITE PERINATAL OUTCOMES IN NULLIPAROUS, TERM, SINGLETON, VERTEX (NTSV) DELIVERIES IN A PHILIPPINE TERTIARY HOSPITAL

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Problem statement: Obstetric care quality in the Philippines is predominantly benchmarked through the primary cesarean section (CS) rate among nulliparous, term, singleton, vertex (NTSV) deliveries, but this does not consistently reflect maternal or neonatal outcomes. Composite frameworks integrating delivery mode with maternal and neonatal morbidity offer a more comprehensive perinatal care assessment, yet no such predictive model has been locally derived for Filipino obstetric populations. ***Methods***: This retrospective cohort study included 2,132 Filipino adult NTSV deliveries at a Philippine tertiary hospital from 2019 to 2024. Deliveries from 2019 to 2022 (n=1,351) were divided into training (80%; n=1,080) and internal-validation (20%; n=271) cohorts. Deliveries from 2023 to 2024 (n=781) comprised an independent temporal-validation cohort. Four predictive algorithms (regularized logistic regression, random forest, support vector machine (SVM), and artificial neural network) were developed for three binary outcomes: mode of delivery, maternal morbidity (Joint Commission International's (JCI) Perinatal Care Measure 07), and neonatal morbidity (JCI's Perinatal Care Measure 06), using identical prespecified predictors. Model performance was assessed using the area under the receiver operating characteristic curve (AUROC), accuracy, and calibration. ***Results***: Overall, 57.4% of deliveries were by CS; maternal morbidity occurred in 1.5% and neonatal morbidity in 1.4%. All four algorithms demonstrated modest and closely grouped performance for CS delivery (temporal AUROC 0.621-0.635), with acceptable calibration. For morbidity outcomes, only 8 maternal and 7 neonatal events occurred in the temporal-validation cohort. SVM was selected as the unified algorithm for the composite score based on its competitive temporal-validation performance across the three outcomes, although high accuracy (0.990 and 0.988) predominantly reflected classification of the non-event majority. The composite risk score was calculated as the arithmetic mean of the SVM-predicted probabilities for the three outcomes and operationalized as P-RADS (Perinatal Risk Assessment Descriptor System). ***Conclusion***: This study presents P-RADS, a locally derived, temporally validated

composite perinatal risk calculator for Filipino NTSV deliveries. Using a unified SVM approach, P-RADS integrates cesarean delivery probability with maternal and neonatal morbidity risk, moving beyond single-metric CS benchmarking toward patient-level, integrated perinatal quality assessment, pending external validation and multicenter refinement.

Disclosure of interest: *None*



ORAL PRESENTATION SESSION 15
FETOMATERNAL MEDICINE: GENETICS | HIGH RISK PREGNANCY | NON-INVASIVE NIPGT

GENETICS

RECURRENT PREGNANCY LOSS AND SEVERE EARLY-ONSET FETAL GROWTH RESTRICTION: PLACENTAL PATHOLOGY OR A COL11A2 VARIANT OF UNCERTAIN SIGNIFICANCE? A CASE REPORT

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Problem statement: Severe early-onset fetal growth restriction (FGR) may result from placental, genetic, infectious, or maternal autoimmune etiologies. Variants of uncertain significance (VUS) challenge prenatal care because a molecular finding and a concurrent placental process may each contribute, and neither should be dismissed nor assumed causal. We report severe early-onset FGR and recurrent pregnancy loss with a heterozygous COL11A2 VUS and significant placental pathology identified together. ***Methods***: A 23-year-old, G4P0 woman, with three previous first-trimester losses with the same partner was followed in a high-risk obstetric clinic. Evaluation included fetal biometry, Doppler studies, viral screening, parental karyotypes, hereditary thrombophilia testing, chromosomal microarray, fetal echocardiography, and targeted skeletal dysplasia testing. Placental histopathology and postnatal ophthalmologic, audiologic, and anthropometric assessments were performed. ***Results***: At 18w, reduced amniotic fluid and severe FGR prompted initiation of enoxaparin and chorionic villus sampling. Serial imaging demonstrated persistent severe FGR with an umbilical artery pulsatility index >95th percentile; echocardiography was normal. Viral screening, parental karyotypes, hereditary thrombophilia testing, and microarray were normal. Skeletal dysplasia testing identified heterozygous COL11A2 c.2387G>A, p.(Gly796Ala), classified as a VUS (possibly pathogenic given the affected glycine residue). The mother did not carry the variant; the partner declined testing. Cesarean delivery at 37w yielded a female neonate (1820 g; Apgar 9/10/10). The placenta showed extensive infarction and massive perivillous/intervillous fibrinoid deposition. Neonatal fundoscopy and audiologic testing were normal, as was six-month reassessment. At seven months, weight and length remained <3rd percentile, head circumference was 3rd–15th percentile, and mild micrognathia was noted. ***Conclusion***: The massive perivillous fibrinoid deposition with infarction offers a plausible mechanism for both the recurrent losses and the FGR. However, a COL11A2-related collagenopathy cannot be excluded: in type XI disease, the eye is characteristically spared, so normal fundoscopy is expected, and the associated sensorineural hearing loss is often progressive, so a normal neonatal screen is not reassuring. Persistent short stature and micrognathia leave the phenotype open to evolution. Because the father declined testing, the variant`s inheritance-de novo or paternal-remains unresolved. A VUS should be interpreted cautiously-neither dismissed nor assumed causal – and longitudinal auditory, skeletal, and growth surveillance is warranted.

UPREGULATION OF TNFRSF1B ACTIVATES THE ER STRESS–INFLAMMATION–APOPTOSIS AXIS IN PLACENTAS OF OVERWEIGHT/OBESE WOMEN WITH GESTATIONAL DIABETES MELLITUS

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Problem statement: Not all overweight/obese pregnant women develop gestational diabetes mellitus (GDM), suggesting additional molecular drivers beyond obesity. The placenta plays a key role in GDM pathogenesis, but the underlying mechanisms remain unclear. This study aimed to identify key differentially expressed genes (DEGs) in placental tissues of overweight/obese GDM patients and to investigate the role of tumor necrosis factor receptor superfamily member 1B (TNFRSF1B) in mediating endoplasmic reticulum (ER) stress, inflammation, and apoptosis. ***Methods***: Placental samples were collected from 10 overweight/obese GDM patients and 10 overweight/obese non-GDM controls. RNA-sequencing (RNA-seq) was performed to screen DEGs, followed by validation using quantitative real-time PCR (qPCR). The association between TNFRSF1B and obesity was analyzed using the DISGENET database. Protein levels of ER stress markers (GRP78, CHOP, ATF4, p-eIF2α), inflammatory cytokines (TNFα, IL-6, IL-1β), and apoptosis-related molecules (CASP9, CASP3, BAX, BCL2) were measured by Western blot. ***Results***: RNA-seq identified 923 DEGs. qPCR confirmed that ATP2A1 and CTRB2 were upregulated in GDM placentas, with ATP2A1 reaching significance ($P<0.05$). TNFRSF1B, GNB1, KIF1B and H6PD also showed consistent upregulation by qPCR. TNFRSF1B protein was significantly elevated in GDM placentas ($P<0.05$). DISGENET analysis revealed a strong association between TNFRSF1B and obesity (score 0.85). GDM placentas exhibited significantly increased expression of ER stress markers (CHOP, ATF4, p-eIF2α), pro-inflammatory cytokines (IL-6, TNFα) and pro-apoptotic proteins (CASP9, CASP3), together with reduced anti-apoptotic BCL2 (all $P<0.05$). ***Conclusion***: TNFRSF1B is upregulated in placentas of overweight/obese women with GDM and is strongly associated with obesity. It may contribute to GDM pathogenesis by activating the ER stress–inflammation–apoptosis axis, representing a potential molecular target for intervention.

Disclosure of interest: *The authors declare no competing interests.*

PROPHYLACTIC ABDOMINAL AORTIC BALLOON OCCLUSION FOR HEMORRHAGE CONTROL DURING PLACENTA ACCRETA SPECTRUM SURGERY: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: Placenta accreta spectrum (PAS) is associated with life-threatening obstetric hemorrhage and remains a major cause of massive transfusion and peripartum hysterectomy. Evidence supporting endovascular balloon occlusion remains largely based on retrospective studies. We evaluated the effectiveness and safety of prophylactic abdominal aortic balloon occlusion (AABO) in women undergoing surgery for PAS in a randomized controlled trial. ***Methods***: In this single-center randomized controlled trial, women with antenatally suspected PAS undergoing planned cesarean delivery were randomized to prophylactic AABO plus standard surgical management or standard management alone. Between August 2024 and January 2026, 150 women were randomized. Ten women allocated to AABO were excluded after randomization: nine withdrew consent and one was deemed unsuitable for balloon placement because of safety concerns. Thus, 65 women in the AABO group and 75 controls were analyzed. Primary outcomes were intraoperative blood loss and transfusion volume. Secondary outcomes included hysterectomy, maternal morbidity, operative outcomes, and AABO-related complications. ***Results***: AABO was associated with significantly lower intraoperative blood loss than standard care (mean 1,433 vs. 2,213 mL; median 1,000 vs. 1,600 mL; adjusted P=0.0066). Transfusion volume was also lower with AABO (mean 687 vs. 1,161 mL; adjusted P=0.0154). Although hysterectomy was less frequent in the AABO group, the difference was not statistically significant. Procedure-related complications were infrequent, consisting primarily of catheter-associated arterial thrombosis. No maternal deaths were attributable to the intervention. ***Conclusion***: Prophylactic AABO significantly reduced intraoperative blood loss and transfusion volume in women undergoing surgery for PAS, without evidence of major intervention-related morbidity. In experienced multidisciplinary centers with endovascular expertise, AABO may represent an effective adjunct for hemorrhage control. These findings provide prospective evidence to inform clinical practice and future recommendations for PAS management.

Disclosure of interest: *The authors declare no conflicts of interest.*

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IDIOPATHIC INTRACRANIAL HYPERTENSION COMPLICATED BY PREECLAMPSIA WITH SEVERE FEATURES IN PREGNANCY: A MULTIDISCIPLINARY CASE REPORT

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Problem statement: Idiopathic intracranial hypertension (IIH) predominantly affects women of reproductive age with obesity, making preconception disease optimization and weight management particularly important. During pregnancy, management requires balancing ophthalmologic risk, medication safety, and obstetric considerations, with follow-up guided by the severity of papilledema and visual function. Evidence suggests a low overall risk of IIH exacerbation during pregnancy, with mode of delivery determined by obstetric rather than neurologic factors and no established benefit from prophylactic cesarean delivery. Data on IIH complicated by chronic hypertension and superimposed preeclampsia remain limited. ***Methods***: Descriptive single-case report of a 26-year-old, G4P1 woman, with pre-existing IIH, chronic hypertension, and class II obesity, followed in a high-risk obstetric clinic. She was co-managed by Obstetrics, Neurology, Neuro-Ophthalmology, Nutrition, and Endocrinology. ***Results***: Following an unplanned pregnancy, acetazolamide and tirzepatide were discontinued, losartan was switched to methyldopa, and aspirin 150 mg/day was initiated. At 19w, Valsalva-exacerbated headaches with bilateral papilledema prompted admission and therapeutic lumbar puncture (opening pressure, 26 cmH_2O). Given overall stability, conservative surveillance was chosen and neurosurgical shunt referral deferred. The patient missed follow-up between 21w and 37w. At 37w, she was admitted with analgesia-refractory headaches without visual disturbance and interval weight gain. Optical coherence tomography demonstrated increased retinal nerve fiber layer thickness with mild bilateral edema. These findings were considered chronic, without worsening of papilledema compared with prior assessment. Multidisciplinary review considered that transient labor-related increases in intracranial pressure posed no significant risk in stable IIH; induction was planned at 39w, with no neurologic indication for cesarean delivery. At 38w, severe hypertension (170/107 mmHg) indicated superimposed preeclampsia with severe features. Magnesium sulfate and labetalol were initiated. Failed misoprostol induction prompted urgent cesarean delivery, resulting in a male neonate (3180 g; Apgar 9/10/10). The postpartum period was uneventful. ***Conclusion***: IIH should ideally be optimized before conception to improve disease control and facilitate safe adjustment of pregnancy-incompatible therapies. Weight management is central, as weight loss is disease-modifying and may induce remission. Stable IIH during pregnancy can generally be managed conservatively with multidisciplinary surveillance. The mode of delivery should follow obstetric indications-as in this case-rather than IIH itself.

MATERNAL PROFILES AND ASSOCIATED OUTCOMES IN PREECLAMPSIA: A FIVE-YEAR RETROSPECTIVE STUDY IN A TERTIARY CARE CENTER

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Introduction: Hypertensive disorders, encompassing chronic hypertension, gestational hypertension, preeclampsia (PE), eclampsia, and superimposed preeclampsia, impact up to 10% of pregnancies globally and contribute to significant maternal and neonatal morbidity and mortality. This study aimed to compare the clinical characteristics of women with preeclampsia and evaluate the associated maternal and neonatal outcomes across different subtypes of preeclampsia. ***Patient and Methods***: This retrospective study was conducted among patients diagnosed with preeclampsia at the Maternal-Fetal Medicine department in National Guard Health Affairs, Riyadh, Saudi Arabia, between January 2019 and January 2024 (5 years). ***Results***: Two hundred and seventy-one patients were analyzed and classified into 4 groups: Mild preeclampsia (N=117; 43.2%), severe preeclampsia (N=102; 37.6%), postpartum preeclampsia (N=42; 15.5%), and superimposed preeclampsia (N=10; 3.7%). The mean maternal age was 32 years, and the mean BMI was 31.2 kg/m2. Superimposed preeclampsia was associated with early preterm delivery (p=0.029), and emergency cesarean section (p=0.010). Stillbirth prevalence among PE patients was 5.5% (N=15). ***Conclusion***: Superimposed preeclampsia was associated with adverse maternal outcomes, including lower gestational age at delivery and increased emergency cesarean section rates. However, these findings should be interpreted carefully due to the small sample size of the superimposed preeclampsia subgroup. Stillbirth occurred in 5.5% of cases and was observed among patients with severe preeclampsia; however, no statistically significant difference was identified between groups. Further prospective studies are warranted to better understand these associations and improve maternal and neonatal outcomes. ***Plain Language Summary***: Preeclampsia is a serious condition that can occur during

pregnancy. It poses significant risks to both the mother and the neonate. This study reviewed medical records of 271 pregnant women diagnosed with preeclampsia over a period five years. Patients were grouped based on the type of preeclampsia: mild, severe, postpartum, or superimposed preeclampsia. The results showed that women with superimposed preeclampsia had more complications, including lower gestational age at delivery and higher chance of emergency cesarean section. Stillbirth occurred in 5.5% of all cases and was more frequently observed in severe preeclampsia. Understanding how different types of preeclampsia affect outcomes can help guide better monitoring and care for women with this condition.

EVALUATION OF FACTORS ASSOCIATED WITH PREGNANCY-RELATED ANXIETY

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Problem statement: This descriptive, cross-sectional, and correlational study was conducted to identify the sociodemographic, obstetric, and psychosocial factors influencing pregnancy-related anxiety among pregnant women, and to evaluate the relationship between fear of childbirth and pregnancy-related anxiety. ***Methods***: The study population consisted of pregnant women who presented to a city hospital in Istanbul, and the sample comprised 322 pregnant women who met the inclusion criteria. Data were collected through face-to-face interviews using the Pregnant Information Form, the Pregnancy-related Anxiety Scale (PrAS), and the Wijma Delivery Expectancy/Experience Questionnaire Version A (WDEQ-A). ***Results***: The mean age of the pregnant women who participated in the study was 29.03 ± 4.77 years. Of the participants, 37% were high school graduates and 79.5% were housewives. The mean gestational age was 34.83 ± 4.93 weeks, and 63% of the women were multiparous. The mean PrAS score was 54.00 ± 10.50, and the mean W-DEQ A score was 54.54 ± 22.47. Moderate fear of childbirth was identified in 45.3% of the pregnant women. A significant positive correlation was found between PrAS scores and W-DEQ A scores, such that fear of childbirth increased as pregnancy-related anxiety increased ($r=0.475$; $p<0.001$). Multivariate linear regression analysis revealed that preferred mode of delivery and fear of childbirth were significant predictors of pregnancy-related anxiety among the participants. These two variables were found to account for 26.4% of the variance in the model. ***Conclusion***: In light of these findings, it was determined that pregnant women experienced a moderate level of fear of childbirth, that fear of childbirth increased as pregnancy-related anxiety increased, and that preferred mode of delivery and fear of childbirth were factors influencing pregnancy-related anxiety among pregnant women.

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SPONTANEOUS UTERINE RUPTURE FROM PLACENTA PERCRETA IN AN UNSCARRED UTERUS: A THIRD-TRIMESTER CASE IN A MULTIGRAVID SMOKER

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Problem statement: Maternal smoking has recently emerged as a potential risk factor for placenta accreta spectrum (PAS), although its role remains underrecognized compared with established risk factors such as previous cesarean delivery and placenta previa. Smoking has been implicated in impaired decidualization, uteroplacental hypoxia, and abnormal trophoblastic invasion, all of which may predispose to PAS. However, reports of placenta percreta occurring in an unscarred uterus among women with a smoking history are exceedingly rare. We present a case of placenta percreta complicated by spontaneous uterine rupture in a grand multiparous, advanced maternal age woman with a previous 10-pack-year smoking history and no prior uterine surgery, highlighting maternal smoking as a possible contributory risk factor in the development of PAS. ***Methods***: We report the case of a 39-year-old grandmultiparous woman at 33 weeks and 4 days age of gestation with a previous 10-pack-year smoking history who presented with severe abdominal pain. Clinical, imaging, intraoperative, and histopathologic findings were reviewed. The diagnosis of placenta percreta was confirmed by histopathology following emergency cesarean delivery and hysterectomy. ***Results***: Histopathologic examination confirmed placenta percreta with chorionic villi penetrating the myometrium to the uterine serosa, without evidence of malignancy. Despite the absence of prior uterine surgery, the patient`s previous 10-pack-year smoking history, together with advanced maternal age and grand multiparity, supports the growing recognition of smoking as a potential contributor to abnormal placentation in PAS. ***Conclusion***: Placenta accreta spectrum should remain a differential diagnosis in pregnant women with severe abdominal pain, even in the absence of previous uterine surgery or positive antenatal imaging. Clinical risk factors, including advanced maternal age, multiparity, and smoking, should prompt heightened suspicion despite negative ultrasound or MRI findings. Early recognition, multidisciplinary approach and timely surgical intervention are critical to reducing maternal and neonatal morbidity. This case highlights PAS as an underrecognized cause of spontaneous uterine rupture in an unscarred uterus.

PERIOPERATIVE HEMOSTATIC PROFILE AFTER PROPHYLACTIC ABDOMINAL AORTIC BALLOON OCCLUSION IN PLACENTA ACCRETA SPECTRUM: A RANDOMIZED CONTROLLED TRIAL

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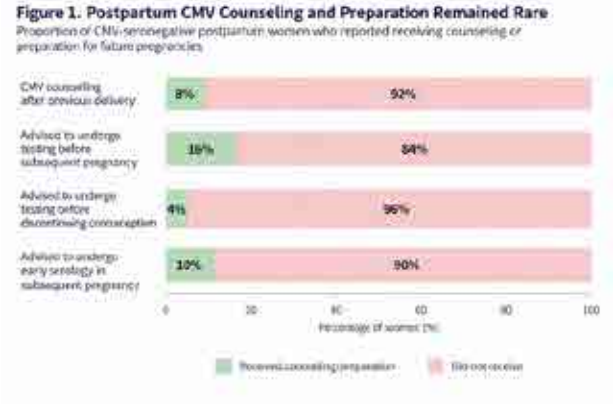
Problem statement: Prophylactic abdominal aortic balloon occlusion (AABO) may reduce hemorrhage during placenta accreta spectrum (PAS) surgery, but its effects on perioperative hemostasis remain unclear. We evaluated temporal changes in thromboelastography (TEG) and conventional coagulation parameters in patients randomized to AABO or standard care. ***Methods***: This secondary analysis included women with antenatally suspected PAS from a single-center randomized controlled trial. Of 140 women in the primary analysis, serial coagulation data were available for 131: 62 AABO and 69 standard care. Coagulation was assessed 24 hours preoperatively, 10 minutes after delivery, at surgery completion, and 24 hours postoperatively. TEG parameters included R, K, α-angle, maximum amplitude (MA), coagulation index (CI), and LY30. Conventional tests included prothrombin time (PT), prothrombin activity, international normalized ratio (INR), activated partial thromboplastin time (APTT), thrombin time, and fibrinogen. Between-group comparisons used appropriate parametric or non-parametric tests with Benjamini–Hochberg correction. ***Results***: No TEG parameter differed significantly between groups at any time point after correction. At 10 minutes, the AABO group had higher prothrombin activity (97.6% vs. 87.9%; adjusted $p=0.0068$), shorter PT (11.8 vs. 12.4 s; $p=0.0159$), and lower INR (1.01 vs. 1.07; $p=0.0045$). No conventional coagulation parameter remained significantly different at surgery completion or 24 hours. Fibrinogen did not differ at any time point. TEG demonstrated comparable clot initiation, kinetics, strength, and fibrinolysis between groups. ***Conclusion***: AABO was not associated with detectable differences in TEG-derived clot kinetics, clot strength, or fibrinolysis. Transient differences in conventional coagulation parameters occurred shortly after delivery but were not sustained postoperatively. These findings provide reassuring evidence that AABO was not associated with measurable adverse alterations in whole-blood coagulation.

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CMV AWARENESS AMONG SERONEGATIVE POSTPARTUM WOMEN: THE POSTPARTUM PERIOD AS AN OPPORTUNITY FOR PREVENTIVE COUNSELING

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Problem statement: Congenital cytomegalovirus (CMV) is a leading infectious cause of childhood hearing loss and neurodevelopmental disability. Early recognition of primary maternal infection is important because antiviral treatment may reduce vertical transmission when initiated early. However, infection may be identified only after first-trimester screening, limiting opportunities for timely intervention, while many women do not seek preconception care before subsequent pregnancies or discontinuing contraception. We assessed CMV-related awareness and previous counseling among CMV-seronegative postpartum women, exploring postpartum hospitalization as an opportunity for preventive counseling. ***Methods***: We conducted a single-center cross-sectional questionnaire study of CMV-seronegative postpartum women from December 2024 through October 2025. A 13-item questionnaire assessed CMV awareness and previous counseling. A composite knowledge score (0-3) assessed transmission and prevention, fetal risks, and available treatment; scores of 2-3 indicated high knowledge. Multivariable logistic regression identified factors associated with high knowledge. ***Results***: Among 250 CMV-seronegative postpartum women, awareness of transmission and prevention, fetal risks, and available treatment was 41.5%, 30.4%, and 16.9%, respectively; 31.0% had high composite knowledge. Postpartum preparation for future pregnancies was uncommon (Figure 1). High knowledge was independently associated with counseling regarding seronegative status before or early in pregnancy (aOR 6.16, 95% CI 3.38-11.24), recalled postpartum counseling (aOR 4.81, 95% CI 1.61-14.39), and parity ≥2 (aOR 2.26, 95% CI 1.28-4.00).***Conclusion***: CMV awareness among seronegative postpartum women remains limited, particularly regarding available treatment. Because many women do not access preconception care, immediate postpartum hospitalization may represent the last predictable opportunity for individualized CMV counseling while serologic results are readily available. Given the strong association between prior counseling and high CMV knowledge, incorporating CMV counseling into routine postpartum discharge may represent a simple and feasible strategy to improve preparedness before subsequent pregnancies.



MATERNAL THYROID FUNCTION IN EARLY PREGNANCY AND RISK OF STIIBIRTH: A MULTICENTER PROSPECTIVE COHORT STUDY

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Problem statement: Stillbirth is a critical global public health challenge with millions of annual cases. Maternal thyroid function is vital for healthy pregnancy and fetal development, yet evidence linking thyroid dysfunction to stillbirth remains scarce and inconsistent. Additionally, unified gestational TSH/FT4 reference ranges are absent, and prior studies methodologically conflated stillbirth with pregnancy termination. Notably, current research only focuses on clinical thyroid disorders, while the potential impact of normal-range thyroid fluctuations on stillbirth risk remains unexplored. ***Methods***: The study was designed as a multicenter prospective cohort study. A total of 140,245 pregnant women were enrolled from 9 tertiary maternal and child health care hospitals across China between February 12, 2018 and December 31, 2022. Logistic regression analysis and restricted cubic splines was employed to assess the relationship between thyroid function biomarkers and stillbirth. ***Results***: The final analysis included 91,673 pregnant women, and the overall incidence of stillbirth was 0.45%. The results showed that FT4 exhibited a significant positive association with stillbirth risk (aOR = 1.04, 95%CI: 1.01–1.07, P = 0.003), with significant linearity (overall P = 0.025, nonlinear P = 0.397). TSH, TPOAb positivity (>60 IU/L), free triiodothyronine, total triiodothyronine, total thyroxine showed no significant associations with stillbirth. Overt hyperthyroidism was associated with a 2.13-fold higher stillbirth risk compared to euthyroidism (aOR = 2.13, 95%CI: 1.09–4.14, P = 0.026), and the results revealed significant associations between early pregnancy FT4 levels and stillbirths attributed to umbilical cord and maternal causes using the ReCode classification. ***Conclusion***: Maternal FT4 level in early pregnancy is significantly associated with stillbirth risk, even within the clinically defined normal range. Additionally, overt hyperthyroidism is associated with a 2.13-fold increased risk of stillbirth.

NON-INVASIVE NIPGT

BLASTOCYST MORPHOLOGY AND NON-INVASIVE PGT-A: ASSESSING THE RELATIONSHIP BETWEEN EMBRYO QUALITY AND EMBRYO-DERIVED CELL-FREE DNA

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Problem statement: Non-invasive preimplantation genetic testing for aneuploidy (niPGT-A) analyses embryo-derived cell-free DNA (cfDNA) released into spent blastocyst culture medium, offering a potentially less invasive approach to assessing embryo chromosomal status. Although blastocyst morphology remains an important parameter in embryo selection, the relationship between morphological quality and the genomic information obtained from spent culture medium remains incompletely understood. This study evaluated the association between blastocyst morphology and niPGT-A results. ***Methods***: This retrospective observational study included 777 blastocysts from 100 IVF cycles. Blastocysts were assessed according to standard morphological criteria based on expansion, inner cell mass (ICM) and trophectoderm (TE) quality. Spent blastocyst culture medium was collected using a standardized protocol and analysed for embryo-derived cfDNA using a validated niPGT-A platform. Genetic results were categorized as euploid, aneuploid, mosaic or non-informative, according to the laboratory reporting criteria. Associations between individual morphological parameters, overall blastocyst grade and niPGT-A results were evaluated statistically. ***Results***: Among 777 good blastocysts analysed,all blastocysts generated an informative niPGT-A result. Euploid, aneuploid, mosaic and non-informative results accounted for 45%, 21%, 19% and 15%, respectively. Higher-quality blastocysts demonstrated higher euploid rates compared with lower-quality blastocysts. Expansion of the blastocyst was the morphological parameter showing the strongest association with niPGT-A outcome. The association between overall blastocyst morphology and genetic status was statistically significant. cfDNA recovery/amplification success was also associated with specific morphological characteristics. ***Conclusion***: Blastocyst morphology demonstrates a significant association with niPGT-A findings, highlighting the complementary roles of morphological and genomic assessment in embryo selection. niPGT-A may provide additional biological information beyond conventional morphological assessment while avoiding embryo biopsy. Further studies integrating morphological characteristics, cfDNA quality and conventional PGT-A findings are warranted to establish the clinical utility and limitations of this emerging approach.

Disclosure of interest: *The authors declare no conflict of interest.*

PRELIMINARY RESULTS FROM THE DANTE STUDY: A RANDOMIZED CONTROLLED TRIAL OF AN ANTI-INFLAMMATORY DIET ON IN VITRO FERTILIZATION OUTCOMES IN WOMEN WITH ENDOMETRIOSIS

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Problem statement: Endometriosis is a chronic inflammatory condition linked to infertility and impaired ovarian response, often requiring IVF despite limited success rates. Dietary interventions may influence reproductive function by modulating systemic inflammation, oxidative stress, and gut microbiota, but randomized evidence regarding IVF outcomes remains limited. Here, we present the preliminary results of the DANTE study that evaluates whether a personalized anti-inflammatory diet before ovarian stimulation improves IVF outcomes, specifically ovarian response, number of retrieved oocytes, and systemic inflammation, in women with endometriosis. ***Methods***: The DANTE study is a single-centre, randomized controlled trial including women aged <40 years with surgically or ultrasonographically diagnosed endometriosis, infertility lasting >12 months, regular menstrual cycles, and preserved ovarian reserve (AFC ≥5). Participants were randomized 1:1 to standard IVF care alone or combined with a 12-week personalized anti-inflammatory Mediterranean-based diet. The primary outcome was poor ovarian response (≤3 oocytes retrieved), according to POSEIDON criteria. Number of retrieved oocytes and change in the low-grade inflammation Score (INFLA-score) were evaluated (PMID: 26355794). ***Results***: This preliminary analysis included 46 women (intervention, n=25; control, n=21). Despite comparable age, infertility duration, AMH levels, endometriosis phenotype, and previous surgery, the intervention group had higher AFC (14 [9–20] vs 8 [9–10]; p=0.004) and lower BMI at baseline (20.9 [20.2–23.0] vs 24.1 [20.6–25.8] kg/m²; p=0.04). The intervention group showed a greater reduction in INFLA-score than controls (median INFLA-score of −4 [−7 to −1] vs. 1 [−1 to 8] in controls, p<0.001) and lower odds of poor ovarian response, although not significant also after adjustment for AFC and BMI (adjOR 1.14, 95% CI 0.22–5.85; p=0.87). More oocytes were retrieved in the intervention group in the crude analysis but the association disappeared after adjustment (β=0.49, 95% CI −3.86 to 4.83; p=0.82). ***Conclusions***: A 12-week personalized anti-inflammatory diet may reduce systemic inflammation in women with endometriosis undergoing IVF, without independently improving ovarian response. Larger completed recruitment is needed to confirm these preliminary findings.

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REPRODUCTIVE AND PERINATAL OUTCOMES FOLLOWING PROGESTERONE-PRIMED VERSUS GNRH ANTAGONIST IVF-ICSI CYCLES: COHORT ANALYSIS CONTROLLING FOR EMBRYO TRANSFER STRATEGY

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Problem statement: Progesterone-primed ovarian stimulation (PPOS) is increasingly used as an alternative to GnRH antagonist (GnRH - ant) protocols in IVF-ICSI cycles. However, comparisons of reproductive outcomes may be confounded by differences in embryo transfer strategy. This study evaluated reproductive and perinatal outcomes following PPOS and GnRH-ant protocols while accounting for embryo transfer strategy. ***Methods***: This retrospective cohort study included 256 women undergoing IVF-ICSI using either PPOS or GnRH-ant ovarian stimulation protocols. Baseline demograhic and ovarian reserve characteristics were comparable between groups. To minimize the influence of embryo transfer strategy, an additional subgroup analysis compared PPOS cycles with frozen embryo transfer (FET) cycles within the GnRH-ant group. The primary outcomes were live birth and perinatal outcomes including gestational age at delivery, neonatal birth weigth, and obstetric complications. Secondery outcomes included biochemical pregnancy, clinical pregnancy, and miscarriage. Statistical analyses were performed using appropriate parametric and nonparametric tests with *p* <0.05 considered statistically significant. ***Results***: Live birth was significantly higher following GnRH-ant than PPOS treatment (54.2% vs. 26.4%; *p* <0.001). Clinical pregnancy was also higher in the GnRH-ant group (61.8% vs. 37.6%; *p*<0.001), whereas biochemical pregnancy occured more frequently after PPOS (42.0% vs. 19.0%; *p*=0.001). Miscarriage rates were comparable between groups.Overall perinatal outcomes did not differ significantly.Gestational age at delivery, neonatal birth weight,gestational diabeted mellitus, and preeclampsia were similar,whereas gestational hypertension occureed more frequently in the PPOS group (9.1% vs. 0.%; *p*=0.010). ***Conclusion***: GnRH antagonist protocols were associated with significantly higher live birth and clinical pregnancy rates than PPOS,even after controlling for embryo transfer strategy. In contrast, maternal and neonatal outcomes were largerly comparable, supporting the perinatal safety of both stimulation approaches. These findings suggest that differences between protocols primarily affect reproductive success rather than obstetric or neonatal outcomes and warrant confirmation in prospective studies.

A SUCCESSFUL IVF FOLLOWING PATIENT-TAILORED OVARIAN STIMULATION IN POOR OVARIAN RESPONSE

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Problem statement: Poor ovarian response (POR) to stimulation is a problem that occurs in between 9% and 24% of patients undergoing in vitro fertilization (IVF) treatments. This percentage increases in women over 38 years old due to ovarian aging and decreased ovarian reserve. The effect of POR may be associated with diminished reproductive prognosis, particularly concerning cumulative live birth rates. Although POR is usually seen among older patients, young patients can also be diagnosed with it. Hence, young patients with POR, despite preserved ovarian reserve markers and uterine anomalies, present a diagnostic and therapeutic challenge. ***Methods***: This is a case report. The aim of this case report is to present a successful IVF outcome in a patient with a poor ovarian response after a patient-tailored ovarian stimulation. ***Results***: A 21-year old patient presented in an IVF clinic in 2018 after two years of primary infertility which was diagnosed based on laboratory and ultrasound findings. Laboratory findings included elevated follicle-stimulating hormone (FSH) 36.7 mIU/L and luteinizing hormone (LH) 14,5 mIU/L, low estradiol (E2) <40 pg/mL and normal anti-Müllerian hormone (AMH) 5.8 ng/mL, suggesting poorer ovarian responsiveness and suspected gonadotropin receptor insensitivity rather than diminished ovarian reserve (DOR). Ultrasound confirmed a total uterine septum and polycystic ovarian morphology. Patient underwent 2 stimulations in March and April 2019 which were cancelled due to the POR. Finally, in July after the third attempt, 16 oocytes were retrieved. Embryo transfer was performed three days after the retrieval. An appropriate rise in beta-human chorionic gonadotropin (ßhCG) confirmed pregnancy. The first pregnancy resulted in a live vaginal birth at 36+6 weeks' gestation in 2020 (3730 g, APGAR 8/9). Following a second embryo transfer in October 2021, a second pregnancy resulted in a live birth in 2022 via cesarean section due to breech presentation (3300 g, APGAR 8/9). ***Conclusion***: This case demonstrates that POR characterized by suboptimal estradiol rise despite standard stimulation can be overcome with individualized dose escalation. Patients with suspected gonadotropin receptor insensitivity may respond to higher doses of FSH medications. A patient-tailored approach remains essential, as initial poor response does not preclude successful reproductive outcomes.

ASSOCIATION BETWEEN OVARIAN STIMULATION PROTOCOLS AND CUMULATIVE LIVE BIRTH RATES IN US IVF PRACTICE: A MULTI-CENTRE REAL-WORLD STUDY FROM 2010 TO 2024

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Problem statement: The use of different gonadotropins during ovarian stimulation varies considerably in clinical practice. Although protocols combining recombinant follicle-stimulating hormone (rFSH) and highly purified human menopausal gonadotropin (HP-hMG) are widely used in the United States, real-world evidence comparing clinical outcomes between different stimulation protocols is limited. ***Methods***: This retrospective study analysed data on in vitro fertilization (IVF) cycles recorded between 2010 and 2024 in Cercle electronic medical records database comprising 38 fertility clinics in the US. The primary outcome was cumulative live birth rate (CLBR), defined as the probability of achieving at least one live birth from a single stimulation cycle including all fresh and frozen embryo transfers derived from that cycle. Three treatment groups were compared: rFSH monotherapy, HP-hMG monotherapy and rFSH + HP-hMG mixed protocol. Inverse probability of treatment weighting based on propensity scores (PS) and multivariable regression adjustment were used to balance baseline covariates and account for measured confounders, including age, body mass index (BMI), anti-Müllerian hormone (AMH), race, prior treatment history, infertility diagnosis, geographic location, clinic networks, and treatment characteristics (total gonadotropin dose and stimulation duration). ***Results***: Overall, 142,304 oocyte retrieval cycles from 99,096 unique patients were included. Mean age (SD) was 36.3 (+/-4.4) years, BMI was 26.5 (+/-5.7), and AMH was 2.7 (+/-2.5) ng/mL. Mixed rFSH + HP-hMG was the predominant stimulation protocol, accounting for 92.4% of all cycles. Adequate covariate balance in baseline characteristics across the three treatment groups was achieved after PS weighting (SMD <0.1). Following PS weighting and covariate adjustment, CLBR was statistically significantly higher with HP-hMG monotherapy (38.6%) and the mixed protocol (42.1%) than with rFSH monotherapy (31.0%) (Table 1). Findings were consistent with unadjusted results, across various sensitivity analyses and age subgroups (<35, 35–37, and ≥38 years). ***Conclusion***: In this large-scale real-world study, stimulation protocols containing HP-hMG, either as monotherapy or in combination with rFSH (i.e., mixed protocol), were associated with improvements in CLBR compared with rFSH monotherapy. The findings support the widespread adoption of mixed rFSH + HP-hMG protocols for ovarian stimulation in contemporary US clinical practice.

Disclosure of interest: *This study was funded by Ferring Pharmaceuticals.*

Table 1. Cumulative live birth rates by ovarian stimulation protocol

Measure	rFSH (reference)	HP-hMG	rFSH + HP-hMG
Sample Size	4480 (3.1%)	6349 (4.5%)	131475 (92.4%)
Crude CLBR	31.2%	43.4%	47.1%
Effective Sampe Size	1818	2429	51883
Adjusted CLBR	31.0%	38.6%	42.1%
Adjusted Odds Ratio [95% CI]	1	1.48 [1.28–1.71], p<0.0001	1.75 [1.56–1.96], p<0.0001

PROGESTERONE-MODIFIED NATURAL CYCLE VS HORMONE REPLACEMENT THERAPY FOR ENDOMETRIAL PREPARATION IN DAY-3 FROZEN EMBRYO TRANSFER: A RETROSPECTIVE COHORT STUDY

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Problem statement: Endometrial preparation is a crucial step in frozen embryo transfer (FET) cycles. Different protocols, including progesterone-modified natural cycles (P4mNC) and hormone replacement therapy (HRT), are commonly used; however, their impact on reproductive outcomes in day-3 embryo transfer remains under discussion. ***Methods***: This retrospective cohort study was carried out at high-volume private fertility clinic.Patinets who anderwent day-3 blastomere FET between January 2023 and December 2025 were included.A total of 336 FET cycles from 297 patients met the inclusion criteria.According to the type of endometrial preparation, cycles were divided into two groups:P4mNC (n=104) and HRT-FET (n=232).The primary outcome measure was live birth rate, while secondary outcomes included clinical pregnancy rate and miscarriage rate. ***Results***: After adjustment for potential confounding factors,the P4mNC group demontrated higher clinical pregnancy rates compared with the HRT-FET group (65.3% vs 40.5%). In addition, the miscarriage rate was lower in the P4mNC group (11.7% vs 22.3%). Consequently,the live birth rate was higher in the P4mNC-FET cycles (57.0% vs 31.4%). ***Conclusion***: Progesterone-modified natural cycle preparation was associated with improved reproductive outcomes compare with hormone replacement therapy cycles in day-3 blastomere FET. These findings suggest that P4mNC may offer a more physiological endometrial environment and could represent an effective alternative strategy for endometrial preparation in frozen embryo transfer cycles. Naturally, both groups are small in number and further larger studies are needed for a final conclusion.

NORMALIZING DONOR FAMILY KINSHIP DURING FORMATIVE YEARS: AN ANALYSIS OF EARLY CONTACT IN SPERM AND EGG DONOR FAMILIES

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Introduction*:** As the global landscape of donor conception shifts away from donor anonymity, a new paradigm of "radical transparency" is emerging. This study investigates the psychological and clinical outcomes for parents who proactively initiate contact with biological half-siblings and donors via the Donor Sibling Registry (DSR) during their children's formative years. ***Methods*:** A qualitative analysis was conducted in March 2026 using data from 34 families recruited through the DSR. Participants responded to a 9-question survey assessing motivations for early contact, the evolution of family/kinship dynamics, and the perceived impact on the child's identity formation. This cohort includes a longitudinal range from infancy through adulthood. ***Results: Data indicate a significant trend toward early disclosure, with the majority of participants initiating contact during infancy or early childhood.

Key findings:

First Connection: 86% of parents in this cohort established donor family connections before their child turned 3 years old: prenatal/in utero: 12%, 0–12 Months: 56%, 1–3 Years: 18%, and 4+ Years: 14%.

Family Structure: Single Mothers by Choice: 62%, Two-Parent Households (LGBTQ+ or Heterosexual): 38%. In two-parent households, 100% of the non-biological parents were reported as being supportive of the early connection.

Contact Motivations: Medical/Genetic Information: 74%, Providing Siblings: 53%, Identity/Normalization: 82%, Curiosity/Gratitude: 15%.

Current Age of Offspring: Infants/Toddlers (0–5): 24%, School Age/Teens (6–17): 53%, Young Adults (18–30): 23%. The data includes a significant longitudinal tail, with the oldest offspring in the survey being 30 years old.

Depth/Evolution of Relationships: High-Level Connection: 44%, Consistent Digital/Verbal Communication: 41%, Low-Level/Information Only: 15%. 100% of respondents who initially sought "only information" reported that their interest grew into a desire for a deeper connection over time.

Success/Satisfaction Rate: 100% of respondents described the connection as positive. 0% of respondents expressed regret for connecting early.

Transition to Offspring-Led: In the 8 cases where offspring are now adults, 100% have transitioned to independent communication with their donor-relatives.

Conclusion: By integrating genetic origins from birth, parents foster an environment where children "cannot remember a time they didn`t know" their history, supporting secure attachment and long-term resilience. These findings challenge the 18-year "identity-release" standard, advocating for earlier social and medical transparency.

LUTEAL-PHASE ESTROGEN PRIMING IS ASSOCIATED WITH LOWER CYCLE CANCELLATION IN WOMEN AGED ≥40 YEARS WITH POSEIDON GROUP 4 LOW PROGNOSIS

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Problem statement: Whether luteal-phase estrogen priming improves ovarian response or merely prolongs treatment in older women with diminished ovarian reserve remains uncertain. Asynchronous or premature follicular recruitment may increase cancellation risk in this population. We assessed whether estrogen priming was associated with lower cycle cancellation and improved embryological outcomes in POSEIDON group 4 women aged ≥40 years. ***Methods***: This retrospective cohort study included 102 women aged 40–46 years who underwent 126 ovarian stimulation cycles between June 2025 and June 2026 at a single centre. POSEIDON group 4 was defined as anti-Müllerian hormone (AMH) <1.2 ng/mL and/or antral follicle count (AFC) <5. In primed cycles, oral estradiol valerate 4 mg daily was administered from cycle days 18–20 until menstruation. All cycles used human menopausal gonadotropin 150–225 IU daily, a GnRH-antagonist protocol, and a dual trigger when indicated. The primary outcome was cycle cancellation before oocyte retrieval; secondary outcomes included total and metaphase II (MII) oocyte yield, fertilisation and blastulation rates. Mixed-effects regression adjusted for age, AMH, previous oocyte yield and gonadotropin dose accounted for repeated cycles. A paired sensitivity analysis was performed among 24 women contributing cycles to both groups. ***Results***: The analysis included 63 estrogen-primed and 63 non-primed cycles. Mean age was 43.8±1.7 years and median AMH was 0.38 ng/mL (IQR 0.22–0.61); baseline characteristics were comparable between groups. Cancellation occurred in 3/63 (4.8%) primed versus 20/63 (31.7%) non-primed cycles, an absolute risk reduction of 26.9 percentage points (adjusted OR 0.14, 95% CI 0.04–0.49; p=0.003). Primed cycles yielded more oocytes (4.3±2.1 versus 3.1±1.8; p=0.003) and MII oocytes (3.1±1.7 versus 1.9±1.4; p=0.006). Fertilisation (72% versus 70%; p=0.64) and blastulation rates (41% versus 39%; p=0.68) were similar. Among the 24 women contributing cycles to both groups, priming was associated with higher oocyte yield (median 4 versus 3; p=0.004) and lower cancellation (4.2% versus 29.2%; p=0.03). ***Conclusion:*** Luteal-phase estrogen priming was associated with lower cycle cancellation and higher oocyte yield in POSEIDON group 4 women aged ≥40 years, without differences in fertilisation or blastulation rates. Given the retrospective design and potential residual confounding, these findings should be evaluated prospectively.

Disclosure of interest: *The authors declare no competing interests.*

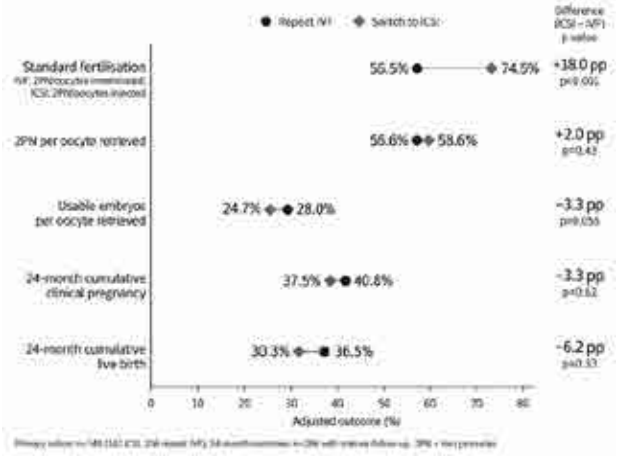
MORE FERTILISATION, BUT NOT MORE BABIES? RETHINKING ICSI AFTER SUBOPTIMAL IVF FERTILISATION

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Problem statement: Switching to intracytoplasmic sperm injection (ICSI) after suboptimal conventional in vitro fertilisation (IVF) often produces a higher reported fertilisation rate. However, IVF and ICSI use different denominators. We investigated whether this apparent ICSI "rescue" translates into more normally fertilised oocytes, usable embryos, pregnancies or live births when both strategies are assessed from the same starting point. ***Methods***: This retrospective multicentre cohort study included women undergoing two consecutive oocyte retrievals 1-12 months apart between January 2015 and August 2025. The index cycle used conventional IVF, with ≥4 oocytes inseminated and 25% to <60% normal fertilisation. At the second retrieval, women underwent either full ICSI or repeat IVF; the first eligible pair per woman was analysed. Models adjusted for initial fertilisation rate, number of oocytes inseminated, age, inter-retrieval interval, treatment site and year. Outcomes included standard fertilisation, normally fertilised two-pronuclear (2PN) oocytes per oocyte retrieved, usable embryos per oocyte retrieved, and 24-month cumulative clinical pregnancy and live birth. Propensity-score overlap weighting was used as a sensitivity analysis. ***Results***: Among 348 women, 142 switched to ICSI and 206 repeated IVF. Adjusted standard fertilisation was 74.5% with ICSI versus 56.5% with IVF (+18.0 percentage points; p<0.001). Using all retrieved oocytes as the denominator, 2PN yield was 58.6% versus 56.6% (+2.0 points; p=0.43), and usable-embryo yield was 24.7% versus 28.0% (−3.3 points; p=0.055), respectively. Among 296 women with mature follow-up, cumulative clinical pregnancy was 37.5% with ICSI versus 40.8% with IVF (p=0.62), and live birth was 30.3% versus 36.5% (p=0.33). Propensity-score analysis produced similar findings. ***Conclusion***: After moderately suboptimal IVF fertilisation, switching to ICSI markedly increased the conventional reported fertilisation rate, but most of this apparent advantage disappeared when both strategies were assessed per oocyte retrieved. No corresponding improvement in usable embryos, clinical pregnancy or live birth was demonstrated. These findings challenge automatic escalation to ICSI solely because previous IVF fertilisation falls below conventional laboratory benchmarks.

Disclosure of interest: *None.*

ESHRE Special Interest Group of Embryology, Alpha Scientists in Reproductive Medicine, The Vienna consensus: report of an expert meeting on the development of art laboratory performance indicators, Human Reproduction Open, Volume 2017.



DOES TIMING MATTER? ACUPUNCTURE TIMING AND CLINICAL PREGNANCY AFTER FROZEN EMBRYO TRANSFER: A RETROSPECTIVE COHORT STUDY

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Problem statement: Acupuncture has been associated with reproductive outcomes in assisted reproductive technology (ART), yet findings remain heterogeneous and a key question is unresolved: does timing around frozen embryo transfer (FET) matter? Direct comparative evidence on distinct FET timing strategies is limited. This paper examined an understudied question in a real-world cohort. ***Methods***: Single-center analytic retrospective cohort included women aged 20–45 years in a Philippine private tertiary hospital, who underwent FET from January 2020 through June 2025 with documented acupuncture during the FET cycle. Acupuncture timing was pre-transfer-only, post-transfer-only, or combined pre- and post-transfer. The primary outcome was clinical pregnancy. Logistic regression estimated crude and adjusted associations; the prespecified model included maternal age and infertility category, with embryo developmental stage, number transferred, and endometrial thickness examined in sensitivity analysis. Secondary outcomes were live birth, biochemical pregnancy, miscarriage, and ectopic pregnancy. ***Results***: Among 584 FET cycles, 20 were pre-transfer-only, 26 post-transfer-only, and 538 combined. Clinical pregnancy rates were 65.0%, 46.2%, and 32.2%, respectively (overall p=0.0039). Compared with post-transfer-only acupuncture, crude ORs were 2.17 (95% CI 0.65–7.19; p=0.206) for pre-transfer-only and 0.55 (95% CI 0.25–1.22; p=0.143) for combined timing. Neither pairwise comparison was statistically significant. After adjustment for maternal age and infertility category, timing was not independently significant (aOR 1.92, 95% CI 0.56–6.60; and aOR 0.48, 0.21–1.09, respectively). Maternal age reduced the odds of clinical pregnancy (aOR 0.88/year, 95% CI 0.83–0.93; p<0.001), and the timing conclusion was unchanged in the expanded model. Live-birth rates were 55.0%, 42.3%, and 27.5% (p=0.009); biochemical pregnancy and miscarriage did not differ significantly. ***Conclusion***: Unadjusted clinical pregnancy varied across timing strategies, but this cohort did not establish an independently superior strategy. Combined pre- and post-transfer acupuncture was the predominant practice pattern in the cohort studied, while the smaller pre- and post-transfer-only groups resulted in less precise estimates. These

single-center findings cannot be generalized to broader FET populations. Given prior evidence suggesting potential reproductive effects of acupuncture but limited evidence regarding optimal timing, further studies directly comparing pre-transfer, post-transfer, and combined acupuncture are needed.
Disclosure of interest: *The authors declare no conflict of interest.*

AI-DRIVEN 3D ORGANELLE MAPPING FOR NON-INVASIVE ASSESSMENT OF HUMAN OOCYTE

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Problem statement: Despite major advances in assisted reproduction, the selection of viable oocytes and embryos relies largely on subjective, surface-level morphology observed in two-dimensional images – as was the case 40 years ago. This approach provides limited insight into the underlying cellular physiology that determines developmental competence. ***Methods***: I propose a novel imaging and computational framework that enables non-invasive, three-dimensional assessment of human gametes and embryos at the organelle level. Using label-free holotomography, living cells can be imaged based on intrinsic refractive index properties, generating quantitative volumetric maps of intracellular structure without the need for fixation or staining. This allows, for the first time, real-time visualisation and quantification of key organelles, such as mitochondria, that play fundamental roles in human reproduction. Building on this imaging modality, our project integrates artificial intelligence methods to develop “digital dyes”: neural networks trained to predict fluorescence-like organelle labels directly from holotomograms. This approach combines the biological interpretability of fluorescent imaging with the safety and scalability required for clinical translation. By quantifying organelle distribution, morphology, and spatial relationships, this work aims to redefine how reproductive competence is understood. Rather than focusing on selection alone, the project seeks to uncover mechanistic biomarkers of gamete quality, enabling earlier, more personalised decision-making in fertility treatment. ***Results***: Clinical Relevance: Infertility affects millions of couples worldwide, yet current IVF assessment tools provide limited information about the true biological competence of oocytes and embryos. A non-invasive method to quantify intracellular organelle health in 3D could transform fertility care by enabling: more accurate prediction of fertilisation and embryo development personalised treatment strategies based on cellular physiology reduced treatment burden and emotional distress for patients improved laboratory decision-making and efficiency. ***Conclusion***: This research addresses a major unmet need in reproductive medicine: access to physiologically meaningful, non-invasive biomarkers that move beyond subjective morphology and unlock the hidden cellular determinants of reproductive success. Ultimately, this approach has the potential to shift reproductive medicine from morphology-based evaluation toward intracytoplasmic-based diagnostics.

ANALGESIA DURING OOCYTE RETRIEVAL: A PILOT RANDOMIZED CONTROLLED TRIAL OF ACUPUNCTURE-TYPE TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (ACU-TENS) AS A PROMISING COMPLEMENTARY MODALITY

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Problem statement: Pain management during transvaginal oocyte retrieval commonly relies on conscious sedation, particularly in resource-constrained settings. However, patients frequently report moderate procedural pain (50/100), necessitating tolerable, non-pharmacological complementary strategies. While acupuncture is an effective analgesic, needle apprehension can limit its clinical utility. Acupuncture-type transcutaneous electrical nerve stimulation (acu-TENS) offers a non-invasive alternative, delivering electrical stimulation to acupoints via surface electrodes. This pilot randomized controlled trial (RCT) evaluated the efficacy and safety of acu-TENS in reducing pain during oocyte retrieval. ***Methods***: This pilot single-blind RCT was conducted between September and November 2025 at the Department of Obstetrics and Gynaecology, Prince of Wales Hospital. Forty women undergoing oocyte retrieval were randomized to receive either acu-TENS (n=20) or sham acu-TENS (n=20; control). The primary outcome was pain intensity, evaluated using the Visual Analog Scale (VAS; scale 0-100) before, during, and after oocyte retrieval. The secondary outcomes were anxiety on the VAS and the incidence of side events. Data were analyzed using the Mann-Whitney Test and Pearson chi-square test in SPSS. ***Results***: During oocyte retrieval, the mean change in pain scores was lower in the acu-TENS group compared to the control group (24.3±38.6 vs 37±38.9), representing a 34.3% pain reduction (p = 0.235). The mean change in anxiety scores in the acu-TENS group (11.7±32.6) was lower than that in the sham acu-TENS group (14.3±41.3), corresponding to an 18.2% anxiety reduction (p=0.796). No adverse effects were recorded in the acu-TENS group. Conversely, the control group reported shortness of breath (n=1; p=0.311), tiredness (n=8; p=0.007), dizziness (n=8; p=0.007), vomiting (n=1; p=0.311), and nausea (n=2; p=0.349). ***Conclusions***: These preliminary findings demonstrate that acu-TENS is a safe, well-tolerated, and potentially effective complementary analgesic modality for patients undergoing oocyte retrieval under conscious sedation. Larger, adequately powered trials are warranted to validate these results and define its role in standard fertility care protocols.
Disclosure of interest: *The authors declare no conflicts of interest.*

ORAL PRESENTATION SESSION 17
FETOMATERNAL MEDICINE: FETAL MEDICINE | LABOR AND DELIVERY
ART/IVF/INFERTILITY: OTHER | TECHNOLOGICAL INNOVATIONS

FETOMATERNAL MEDICINE: FETAL MEDICINE

FETAL GLYCEMIA IN GESTATIONAL DIABETES MELLITUS AND ANTENATAL CORTICOSTEROID THERAPY AND FETAL HEART

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Problem statement: Gestational diabetes mellitus (GDM) and poor maternal glycoregulation (A1c > 6.1%) are the most important etiological factors in the development of congenital anomalies and modified function of the fetal heart. The first sonographic markers of altered fetal heart function include cardiac hypertrophy: increased interventricular septum thickness (IVS) > 5mm and cardiothoracic ratio (CTR)> 0.6. Functional changes include impaired diastolic function: E (early left or right atrial MV and TV diastole); A: left or right atrial systole (E/A ratio). Antenatal corticosteroid therapy (ACST) is a significant factor in short-term altered fetal glycoregulation with unclear impact on fetal heart. ***Methods***: A total of 192 patients were enrolled in a retrospective study during their first visit to the Clinic for Gyn/Obstet University Clinical Center in Belgrade during 2019-2026. The following groups were: patients with GDM treated only with dietary changes (GDM group, n = 63); patients who received antenatal corticosteroid therapy (ACST group, n = 63); and a control group of healthy pregnant women (C group, n = 66). GDM was diagnosed on average in 28GW and ACST was administrated at 31GW. The first fetal echocardiogram was obtained immediately after admission at 37.2 GW. Statistical analysis: two-sample t-test, ANOVA. ***Results***: CTR was statisticaly significant higher in the GDM group (0,57±0,07) than in the ACST group (0,5±0,06) (p=0.000). Unexpectedly, IVS septum thickness was significantly higher in the ACST group (4,39±0,31) than in the GDM group (3,82±1,13) (p=0.0007). The average measured MV (E/A) diastolic function in the GDM group was 0.85 ± 0.06, in the ACST group 0.85 ± 0.03, and in the C group it was measured 0,85±0,04 (p = 0.967). The average measured TV diastolic function (E/A) in the GDM group was 0.76± 0.05, in ACST group it was 0.76± 0.03; and in group C, it was measured 0,75±0,04 (p=0.229). ***Conclusion***: Long-term poor fetal glycoregulation in GDM is related to the development of cardiomyopathy. Short-term changes in fetal glycoregulation after ACST are related to IVS thickness> 5 mm. Modified glycoregulation in GDM and after ACST does not change diastolic function of the fetal heart.
The authors declare no conflicts of interest.

LATE TERMINATION OF PREGNANCY FOR SEVERE FETAL CONGENITAL ANOMALIES

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Problem statement: Congenital anomalies (CA) remain a leading cause of second-trimester pregnancy termination and perinatal morbidity. However, the spectrum of anomalies and their associated risk factors require further elucidation to optimize preconception care and prenatal screening strategies. ***Methods***: A retrospective cohort study was conducted on 1,426 cases of medically indicated pregnancy termination for fetal anomalies (13–22 weeks) between 2015 and 2024 at two affiliated institutions in St. Petersburg, Russia. Clinical and anamnestic data, ultrasound and biochemical markers, and karyotyping results were analyzed. Multiple logistic regression with bubble chart visualization was used to identify risk factors for isolated and multiple congenital anomalies. ***Results***: Isolated central nervous system (CNS) anomalies predominated among isolated defects (41.1%), most frequently represented by the combination of spina bifida with Arnold–Chiari type II malformation (31%), cephalocele (6%) and congenital hydrocephalus (6%). The strongest associations with CA were observed for chromosomal abnormalities (adjusted OR = 59.88; 95% CI 38.30–93.62; p < 0.001) and herpes simplex virus reactivation in the first trimester (OR = 28.67; 95% CI 1.62–506.37; p = 0.022). Maternal hyperhomocysteinaemia (>7.7 μmol/L) was associated with isolated CNS defects (adjusted OR = 18.71; 95% CI 4.37–79.99; p < 0.001) and was detected in 68.6% of examined patients with this pathology. Maternal congenital heart disease (OR = 11.64; 95% CI 2.20–61.46; p = 0.004) and CA in first- or second-degree relatives (OR = 9.43; 95% CI 1.70–52.20; p = 0.010) were associated with fetal congenital heart defects. Environmental factors (occupational chemical exposure, radiation) were associated with musculoskeletal defects (adjusted OR = 4.64; p = 0.004). ***Conclusion***: Isolated CNS defects dominate the spectrum of fetal anomalies in this cohort and are strongly associated with hyperhomocysteinaemia, herpesvirus reactivation and hypothyroidism. These findings support the expansion of preconception screening to include homocysteine levels, thyroid status and herpes virus markers, as well as individualised risk-based preventive strategies.

MATERNAL RISK FACTORS AND DOPPLER ULTRASOUND FOR PREDICTING COMPOSITE ADVERSE PERINATAL OUTCOMES IN LATE-ONSET FETAL GROWTH RESTRICTION

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Problem statement: Late-onset fetal growth restriction (FGR) remains associated with neonatal morbidity despite frequently normal conventional Doppler findings. Identifying factors associated with adverse outcomes may improve risk stratification and guide clinical management. This study aimed to identify maternal and ultrasonographic factors associated with adverse neonatal outcomes in pregnancies with late-onset FGR. ***Methods***: This retrospective cohort study included singleton pregnancies diagnosed with late-onset FGR at ≥32 weeks between January 2019 and October 2024. Maternal characteristics, fetal biometry, amniotic fluid volume, umbilical artery Doppler, and cerebroplacental ratio (CPR) were evaluated. Univariable and multivariable logistic regression analyses were performed to identify factors associated with composite and individual adverse neonatal outcomes. ***Results***: Among 112 pregnancies, 53 (47.3%) had at least one adverse neonatal outcome. Neonatal jaundice, respiratory distress syndrome (RDS), and hospital stay exceeding 7 days were the most common adverse outcomes. Lower gestational weight gain, maternal thyroid disease, and earlier gestational age at delivery were associated with adverse neonatal outcomes. Conventional Doppler parameters did not differ significantly between groups, although low CPR percentiles were more frequent among pregnancies with adverse outcomes. Models incorporating maternal and ultrasonographic factors showed moderate discriminatory performance, with areas under the receiver operating characteristic curve ranging from 0.70 to 0.80 across the composite and individual neonatal outcomes. ***Conclusion***: Maternal factors, particularly lower gestational weight gain and thyroid disease, may help identify pregnancies with late-onset FGR at increased risk of adverse neonatal outcomes. Although conventional Doppler parameters were not significantly associated with adverse outcomes, lower CPR showed a trend toward increased risk. Integrating maternal factors with CPR may improve individualized risk assessment in late-onset FGR.

Disclosure of interest: *The authors report no conflict of interest.*

FETOMATERNAL MEDICINE: LABOR AND DELIVERY

SUPPORTIVE CARE PERCEPTIONS AND PERIPARTUM VARIABLES AS PREDICTORS OF CHILDBIRTH EXPERIENCE: A CROSS-SECTIONAL ANALYSIS

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Problem statement: Childbirth is a transformative life event involving complex physiological and emotional processes, where the quality of care received is a primary determinant of long-term maternal well-being. This study was conducted to determine the correlation between the perceptions of supportive care provided during labor and childbirth experiences among postpartum women and to analyse the predictive power of supportive care for childbirth experience. ***Methods***: This This cross-sectional and correlational study was conducted with 201 mothers who gave birth at a public hospital in the Mediterranean region of Türkiye between September 2024 and February 2025. Data were collected via paper-based descriptive information form, the WPSCL, and the CEQ. ***Results***: The participants' WPSCL scores indicated a high level of supportive care, and the CEQ scores reflected positive childbirth experiences. While no statistically significant difference was found between descriptive variables (e.g., educational level, employment status) and scale scores, a negative correlation was observed between the duration of latent/active phases and informational/comforting support subdimensions. Furthermore, significantly lower CEQ scores were identified in patients who underwent episiotomy or assisted vaginal birth. A moderate positive correlation was found between the WPSCL and total CEQ scores. Linear regression analysis demonstrated that the perception of supportive care explained 36.5% of the total variance in childbirth experience, indicating that it was a significant predictor (p<0.05). ***Conclusion***: Supportive care during labor is a critical determinant of a positive childbirth experience. Evidence-based supportive care as measured by the WPSCL, particularly during prolonged labor and obstetric interventions, enhances the experience. The implementation of evidence-based, respectful, and supportive care models are essential for optimizing maternal healthcare quality.

Keywords: *Midwifery care; supportive care at childbirth; childbirth experience*

ART/IVF/INFERTILITY: OTHER

FROM IVF TREATMENT TO IVF CARE: A PATIENT-CENTRED MODEL INTEGRATING EMOTIONAL, BODY-AWARENESS AND INTIMACY SUPPORT

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Problem statement: In vitro fertilisation (IVF) care is structured predominantly around reproductive outcomes, while the emotional, bodily and relational experience of women may receive less systematic attention within the clinical care pathway. Structured supportive approaches addressing emotional wellbeing, body awareness and relational wellbeing may provide an opportunity to

complement conventional fertility treatment. We propose a patient-centred model integrating these dimensions into routine IVF care. ***Methods***: A patient-centred IVF care model was implemented alongside standard medical treatment and evaluated over a six-month prospective observational pilot. Thirty-four women aged 38–45 years undergoing IVF were included: 15 participated in the four-week supportive programme and 19 received standard IVF care without the programme. The intervention comprised four individual sessions, daily patient-reported monitoring, weekly follow-up, personalised coping strategies, emotional self-regulation, body-awareness exercises, and relationship and intimacy support. Patient-reported wellbeing was assessed across five exploratory domains using structured 0–10 self-rating scales. Clinical outcomes, including ovarian response to stimulation, number of mature oocytes and pregnancy, were also recorded. Outcomes were compared descriptively between women participating in the programme and those receiving standard IVF care. ***Results***: Women participating in the integrated support programme had a 10.5% higher composite ovarian-response score and a 7% higher number of mature oocytes compared with women receiving standard IVF care alone. The observed pregnancy rate was 53.3% (8/15) among programme participants compared with 31.6% (6/19) among women receiving standard IVF care. These preliminary findings suggest a favourable association between participation in the integrated support programme and selected reproductive outcomes. ***Conclusion***: This prospective pilot introduces a patient-centred model that extends IVF care beyond reproductive procedures to include emotional, bodily and relational dimensions of the treatment experience. The observed differences in ovarian response, number of mature oocytes and pregnancy rates support further investigation of integrated emotional, body-awareness and intimacy support as a complementary component of fertility care. Larger controlled studies using validated patient-reported instruments and predefined clinical endpoints are warranted to further evaluate this model.

No disclosure of interest.

DEFINING SAFE ZONES FOR AI-ASSISTED PATIENT EDUCATION IN IVF CLINICS: A HYBRID OPERATIONAL MODEL VALIDATED ON IVF PATIENT QUESTIONS

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Problem statement: Patients undergoing in vitro fertilization (IVF) have substantial educational needs throughout treatment, frequently seeking guidance on medication use, treatment preparation, symptoms, procedural logistics, and post-procedural care. Providing timely education is resource-intensive yet essential for patient safety, reassurance, and treatment adherence. Although large language models (LLMs) offer new opportunities for scalable patient support, their integration into routine care remains uncertain due to limited understanding of clinical workflows, inability to reliably assess medical urgency, and inappropriate reassurance. ***Methods***: We analysed multilingual IVF patient questions to identify evidence-based operational boundaries for AI-assisted support and developed PrepAId-IVF, based on the HiCARE framework, to operationalise those boundaries. PrepAId-IVF employs a hybrid governance model: deterministic clinical safety rules, derived from clinic-approved protocols and professional guidelines, define non-negotiable constraints for safety-critical situations, including symptoms, clinical uncertainty, or questions requiring medical judgement, while LLM-based semantic reasoning interprets language variability, ambiguity, and intent to ensure consistent application of those constraints. This enables routine educational interactions to be distinguished from situations requiring clinical assessment and routed to educational guidance, clarification, administrative support or clinical escalation. ***Results***: The approach was evaluated using 1402 multilingual paraphrased patient questions and 28,040 simulated interactions covering diverse clinical, administrative, and educational scenarios. Across repeated simulation runs, escalation sensitivity consistently exceeded 98.0%, with no false reassurance. Routine educational and administrative questions supported by clinic-approved resources were safely managed through PrepAId-IVF, whereas questions requiring medical judgement were consistently escalated to healthcare professionals. Questions outside the predefined operational scope defaulted to clinician referral rather than unrestricted AI-generated advice, reinforcing the safe operational limits. ***Conclusion***: Analysis of IVF patient questions suggests that routine educational and administrative interactions constitute a substantial proportion of patient communication, whereas only a small subset requires clinician judgement. These findings identify patient education and administrative support as the current evidence-based operational boundaries for AI-assisted communication in IVF care. PrepAId-IVF demonstrates that hybrid governance, combining deterministic clinical safety rules with semantic reasoning, can operationalise these boundaries, reducing communication workload while preserving clinician oversight and the balance between AI-assisted and human-to-human care, thereby providing a transferable model for responsible AI adoption across procedural care pathways.

DETERMINING INTOLERANCE OF UNCERTAINTY, COPING WITH INFERTILITY-RELATED STRESS,AND SPIRITUAL WELL-BEING IN COUPLES UNDERGOING INFERTILITY TREATMENT

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Problem statement: Infertility treatment is a medically and emotionally demanding process in which uncertainty, stress, and spiritual needs may shape individuals` adjustment. This study aimed to determine intolerance of uncertainty, coping with infertility-related stress, and spiritual well-being among individuals undergoing infertility treatment and to examine the relationships among these variables. ***Methods***: This descriptive, correlational study was conducted between February and May 2024 with 152 individuals (76 couples) who attended an in vitro fertilization center in Ankara, Türkiye, and agreed to participate. Data were collected using a Demographic Information Form, the Intolerance of Uncertainty Scale, the Infertility Stress Coping Scale, and the Spiritual Well-Being Scale. Data were analyzed using IBM SPSS Statistics version 27. ***Results***: There were no statistically significant differences between female and male participants in total Spiritual Well-Being Scale or Intolerance of Uncertainty Scale scores ($p > .05$). Female participants had significantly higher active-confrontive coping scores than male participants ($p < .05$). Intolerance of uncertainty was positively associated with active-ignoring and passive-ignoring coping methods. Spiritual well-being was positively associated with meaning-based coping. No significant association was found between spiritual well-being and intolerance of uncertainty. ***Conclusion***: Infertility should be addressed not only as a medical condition but also as a process with psychosocial and spiritual dimensions. Nursing care should assess couples together while remaining responsive to gender-specific needs. Interventions designed to increase tolerance of uncertainty, promote adaptive coping strategies, and strengthen spiritual well-being may support individuals throughout infertility treatment.

Keywords: *Coping with stress, Infertility, Intolerance of uncertainty, Nursing, Spiritual well-being.*

TECHNOLOGICAL INNOVATIONS

ULTRA-SHORTENED OOCYTE WARMING PROTOCOLS: EFFECTS OF DISACCHARIDE TYPE AND CONCENTRATION ON SURVIVAL AND DEVELOPMENTAL COMPETENCE AFTER PARTHENOGENETIC ACTIVATION

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Problem statement. Standard oocyte-warming protocols use sequential dilution steps, increasing exposure to non-physiological conditions and laboratory handling. Ultra-shortened protocols omit these steps and may simplify workflow, but their effects on survival and developmental competence remain uncertain. We compared four ultra-shortened protocols differing in disaccharide type and concentration with standard warming. **Methods**. This ongoing single-center experimental study has so far included 519 research-donated oocytes from 47 patients since June 2025. All oocytes had previously been vitrified using a standard 1 M trehalose protocol. The median age at cryopreservation was 33 [29–35] years, and indications included surplus oocytes (70%) and pre-chemotherapy fertility preservation (30%). Oocytes underwent standard warming

with 1 M trehalose (control; n=139) or ultra-shortened warming with 1 M trehalose (P1; n=98), 0.5 M trehalose (P2; n=86), 1 M sucrose (P3; n=97), or 0.5 M sucrose (P4; n=99). After 2 hours, viable oocytes underwent parthenogenetic activation. Survival, activation, cleavage, and the availability of cleaved embryos per warmed oocyte were assessed. **Results**. Survival rates were 83% in the control group and 83%, 70%, 87%, and 77% in P1–P4, respectively; P2 had significantly lower survival than the control ($p<0.05$). Activation rates did not differ significantly (81%, 78%, 60%, 74%, and 70%, respectively). Among activated oocytes, the cleavage rate was significantly lower in P3 than in the control (60% versus 77%; $p<0.05$). Overall, the proportions of cleaved embryos per warmed oocyte were 52% in the control group and 56%, 34%, 38%, and 39% in P1–P4, respectively. This outcome was significantly lower in P2 ($p<0.01$) and P3 ($p<0.05$), but not in P1 or P4, compared with the control. ***Conclusion***. In oocytes vitrified using 1 M trehalose, ultra-shortened warming with the same disaccharide and concentration (P1) achieved outcomes comparable to standard warming. Conversely, reducing the trehalose concentration to 0.5 M compromised both survival and the availability of cleaved embryos per warmed oocyte, while replacing trehalose with 1 M sucrose negatively affected cleavage outcomes. In contrast, 0.5 M sucrose did not significantly impair any assessed outcome. These findings suggest that ultra-shortened warming may be feasible, but its effectiveness depends on disaccharide type and concentration.

CELL-BASED THERAPY FOR REFRACTORY THIN ENDOMETRIUM: AUTOLOGOUS BONE MARROW-DERIVED AND ALLOGENEIC UMBILICAL CORD-DERIVED MESENCHYMAL STROMAL CELLS

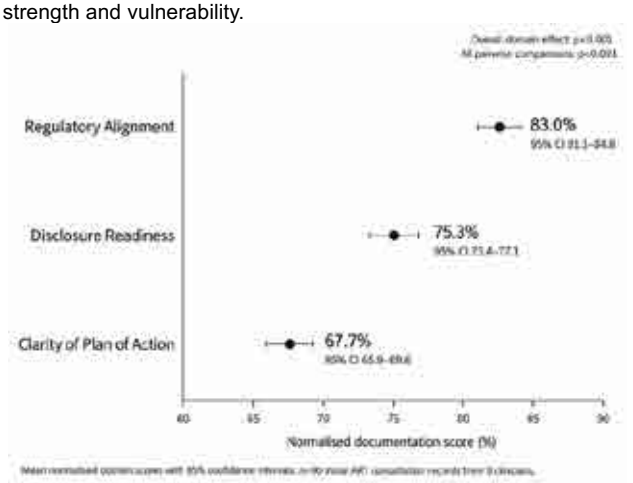
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Problem statement: Refractory thin endometrium is a challenging cause of uterine-factor infertility associated with impaired endometrial growth, reduced receptivity, and recurrent implantation failure. Mesenchymal stromal cell (MSC)-based therapy may promote endometrial regeneration in patients unresponsive to conventional treatment. ***Objective***: To evaluate the effectiveness of autologous bone marrow-derived MSCs and allogeneic umbilical cord-derived MSCs in women with refractory thin endometrium. ***Methods***: The study comprised two consecutive stages. In the first stage, 36 women with an endometrial thickness of ≤7 mm and at least two failed in vitro fertilization attempts received three intrauterine administrations of 5 million autologous MSCs. Bone marrow was aspirated from the iliac crest, and the cell suspension was administered on days 5–7 of the menstrual cycle under ultrasound guidance. In the second, pilot stage, seven women received allogeneic umbilical cord-derived MSCs. Four treatment sessions were performed at 2-week intervals; each included intrauterine administration of 10 million MSCs and intravenous administration at a dose of 2 million cells/kg. Effectiveness was assessed by changes in endometrial thickness and pregnancy achievement. ***Results***: Following combined intrauterine and intravenous administration of allogeneic umbilical cord-derived MSCs, endometrial thickness increased significantly ($p=0.001$). Endometrial growth was observed in 4 of 7 women (57.1%), and pregnancy was achieved in 2 of 7 patients (28.6%). These preliminary findings demonstrate a clinically relevant regenerative response in women with refractory thin endometrium who had limited remaining treatment options. In the preceding study of autologous bone marrow-derived MSCs, mean endometrial thickness increased from 2.39 ± 0.64 to 6.56 ± 0.94 mm ($p=0.001$). An endometrial thickness of ≥7 mm was achieved in 28/36 women (77.8%); clinical pregnancy occurred in 9/28 women (32.1%), and six pregnancies progressed beyond 12 weeks. ***Conclusion***: Cell-based therapy may improve endometrial growth and reproductive outcomes in women with refractory thin endometrium. Both approaches demonstrated potential efficacy, although the preliminary results with allogeneic MSCs require confirmation in larger controlled studies.

NOT ANOTHER AI SCRIBE: USING ARTIFICIAL INTELLIGENCE TO QUALITY-CHECK FERTILITY CONSULTATION DOCUMENTATION

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Problem statement: Artificial intelligence (AI) is increasingly used to transcribe and summarise clinical consultations, but its potential to assess documentation quality is less explored. We investigated whether a transparent, rule-constrained AI framework could quantify narrative documentation quality in assisted reproductive technology (ART) consultations and identify systematic areas of strength and vulnerability.



Methods: In this cross-sectional observational study, 90 consecutive initial ART consultation records from nine clinicians were assessed using a predefined framework covering three domains: Regulatory Alignment, Clarity of Plan of Action, and Disclosure Readiness. An AI tool applied fixed scoring criteria without learning from or modifying clinical content. Domain scores were standardised as percentages of the maximum possible score and analysed using mixed-effects models accounting for documents nested within clinicians. Sensitivity analyses adjusted for consultation type and documentation length. Fifteen randomly selected records were independently scored by an expert clinician blinded to AI scores. Repeatability was assessed by repeated AI scoring under identical conditions. ***Results***: Documentation quality differed significantly across domains ($p<0.001$). Regulatory Alignment scored highest at 83.0%, Disclosure Readiness 75.3%, and Plan Clarity lowest at 67.7%; all pairwise differences were significant ($p<0.001$). This hierarchy remained unchanged after adjustment for consultation type and documentation length and was consistent across consultations (Kendall's $W=0.53$; $p<0.001$). AI–expert agreement was substantial (weighted kappa=0.65), with high concordance in domain ordering (mean Kendall tau=0.84) and no significant overall scoring difference ($p=0.10$). Repeated AI scoring showed 0–4.2% variation under identical conditions. ***Conclusion***: Fertility documentation recorded regulatory reasoning more consistently than explicit next steps, responsibilities and contingencies. A constrained AI framework can reproducibly identify domain-specific documentation gaps rather than merely generate notes. AI-assisted documentation support may therefore have value as targeted formative feedback on what a clinical record is missing.
Disclosure of interest: *None.*

ORAL PRESENTATION SESSION 18:
GYNECOLOGY: OTHER | GSM/VVA | GYNECOLOGY

OTHER

THE RELATIONSHIP BETWEEN ECO-ANXIETY AND ATTITUDES TOWARD FERTILITY AND CHILDBEARING AMONG WOMEN OF REPRODUCTIVE AGE

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Problem statement: Climate change and environmental crises may be relevant to women's attitudes toward fertility and childbearing through growing concerns about the future. However,

evidence remains limited regarding how different dimensions of eco-anxiety are associated with specific aspects of fertility and childbearing attitudes, including the importance of future fertility, perceived limitations of having children, and female identity. This study aimed to examine the relationship between eco-anxiety and attitudes toward fertility and childbearing among nulliparous women aged 20–30 years. ***Methods***: This cross-sectional study included 400 nulliparous women aged 20–30 years who were registered with Family Health Centers in a city in the Central Anatolia Region of Türkiye. Data were collected using a sociodemographic characteristics form, the Attitudes Toward Fertility and Childbearing Scale, and the Hogg Eco-Anxiety Scale (HEAS-13). Descriptive statistics, Pearson correlation analysis, and hierarchical multiple linear regression analyses were performed. Regression models were adjusted for age, marital status, education level, employment status, income level, and place of residence. Statistical significance was set at $p<0.05$. ***Results***: The mean age was 23.85±2.93 years, and 71.0% intended to have children in the future. Overall, 64.8% reported concerns about having children because of global environmental problems; 53.3% had sometimes considered foregoing childbearing because of environmental crises, and 17.0% had seriously considered doing so. All HEAS-13 dimensions were negatively correlated with the importance of future fertility ($r=-0.217$ to -0.319) and female identity ($r=-0.222$ to -0.362), and positively correlated with perceived limitations of having children ($r=0.319$–0.433; all $p<0.001$). In adjusted models, rumination ($\beta=-0.178$; $p=0.003$) and anxiety about personal impact ($\beta=-0.191$; $p=0.001$) were associated with lower importance of future fertility; anxiety symptoms ($\beta=0.228$; $p<0.001$) and behavioral symptoms ($\beta=0.204$; $p<0.001$) were associated with greater perceived limitations; and anxiety symptoms ($\beta=-0.236$; $p<0.001$) and anxiety about personal impact ($\beta=-0.163$; $p=0.003$) were associated with lower female identity scores. The final models explained 15.3%, 25.6%, and 18.3% of the variance in these outcomes, respectively. ***Conclusion***: Different dimensions of eco-anxiety were associated with distinct aspects of fertility and childbearing attitudes among nulliparous women aged 20–30 years. Environmental concerns may therefore warrant consideration when assessing women's attitudes toward fertility and childbearing.

A BRIEF PRE-PROCEDURAL COGNITIVE-BEHAVIORAL INTERVENTION REDUCES PREOPERATIVE DISTRESS AND RECOVERY PAIN IN WOMEN UNDERGOING DILATION AND CURETTAGE FOR MISCARRIAGE

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Problem statement*:** Miscarriage requiring dilation and curettage (D&C) is associated with significant preoperative distress, anxiety, and pain. Brief presurgical psychological interventions for this population, and their effects on psychological and pain outcomes, have rarely been studied. ***Method*:** A prospective, randomized, partially-blinded (medical staff blinded) controlled trial enrolled 114 women (mean age 32.4 years) undergoing elective D&C for missed abortion (gestational age ≤14 weeks) at Mayanei Hayeshua Medical Center, Israel. Women were randomized to a cognitive-behavioral intervention (CBI) group (n=53) or control group (n=61). Subjective Units of Distress (SUDS, 0–10) were assessed at recruitment (T1) and immediately before entering the operating room (T2); pain was assessed before D&C and in recovery. Between T1 and T2, the CBI group received a single 30–45 minutes multimodal intervention composed of diaphragmatic breathing, desensitization via bilateral stimulation, cognitive restructuring of distressing beliefs, and guided imagery of a safe/pleasant place, with somatic anchoring of positive states reinforced by suggestions. ***Results*:** Mixed-design ANOVA revealed a significant group-by-time interaction ($p<.001$): SUDS rose in controls from T1 to T2 (4.26 to 5.70, $p=.01$) but fell in the CBI group (4.55 to 2.34, $p<.001$; Figure). In a secondary analysis excluding participants who received a long-acting analgesic (Ketamine hydrochloride) during the procedure, recovery-room pain was also significantly lower in the CBI group compared with controls ($p<.05$). ***Conclusion: A brief, single-session multimodal CBI delivered immediately before D&C reduces preoperative distress and recovery-room pain in women following spontaneous abortion. Given its demonstrated efficacy and feasibility under time-pressured clinical conditions, wider implementation in gynecological procedures is recommended. Future studies are warranted to examine its extension to additional surgical settings.

Disclosure of interest: *None declared.*

DETERMINING THE RELATIONSHIP BETWEEN SUSTAINABLE NUTRITION AND HEALTHY LIFESTYLE BEHAVIORS IN INCREASING FERTILITY IN WOMEN: A PILOT STUDY

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Problem statement: Fertility is directly or indirectly related to nutrition. Positive lifestyle behaviors, increased fertility awareness, and improved overall health status are fundamental needs for women to maintain fertility and prevent infertility. In this context, sustainable nutrition is an important issue to address in women of reproductive age. This study was conducted to determine the relationship between women`s sustainable nutrition behaviors and healthy lifestyle behaviors in improving fertility. ***Method***: This research is a descriptive cross-sectional study. The study population consisted of women of reproductive age living in southern Turkey. Data were collected online using Google Forms. A personal information form, the Sustainable Nutrition Behavior Scale, and the Healthy Lifestyle Behaviors for Fertility Enhancement Scale were used for data collection. The collected data were analyzed using SPSS 22 software. The data collection phase of the research is ongoing, and so far 176 women have been reached. The target sample size is 422 women. ***Results***: The average age of the women participating in the study was 28.02±9.40. The mean score on the Sustainable Nutrition Behavior Scale was determined to be 103.88±19.57 and the mean score on the Healthy Lifestyle Behaviors in Fertility Enhancement Scale was 153.72±13.18. A moderately strong positive and statistically significant correlation was found between the Sustainable Nutrition Behavior Scale and the Healthy Lifestyle Behaviors in Fertility Enhancement Scale. ***Conclusion***: It was concluded that women have good levels of sustainable nutrition behaviors and healthy lifestyle behaviors in fertility enhancement. In line with these results, it is recommended that awareness be created by providing training to women of reproductive age on the effects of sustainable nutrition on fertility and healthy lifestyle behaviors in fertility enhancement, and that women be encouraged and supported in this regard.

Keywords: *diet, fertility, healthy lifestyle, sustainable, women.*
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INTER-RATER RELIABILITY AND CLINICAL UTILITY OF THE MODIFIED FERRIMAN–GALLWEY SCALE IN ROUTINE PRACTICE

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Objectives: To evaluate the reliability and clinical utility of the modified Ferriman–Gallwey (mFG) score in routine practice when applied by clinicians with differing experience and by patients for self-assessment. ***Methods***: In this cross-sectional reliability study, 43 reproductive-aged women were assessed for hirsutism. Three clinicians (reproductive endocrinologist, general gynecologist, and resident) independently scored participants using the mFG scale, and patients self-graded their hirsutism. Inter-rater reliability was examined using intraclass correlation coefficients (ICC) and weighted kappa statistics by body area. Clinical agreement was assessed with Bland–Altman limits of agreement (LOA). ***Results***: Inter-rater reliability was good (ICC = 0.649), higher between experienced clinicians (ICC = 0.723) and lower when the resident was included (ICC = 0.588). Weighted kappa ranged from 0.118 to 0.832 (highest for chin, lowest for upper back). Bland–Altman analysis showed substantial disagreement: experienced pair bias −0.74 (LOA −6.94 to +5.46) and less-experienced pair bias +0.44 (LOA −7.22 to +8.11). Patient self-scoring showed poor agreement with clinician scoring (ICC = 0.20). ***Conclusions***: Although clinician scoring demonstrated good statistical reliability, inter-rater differences remained clinically meaningful, with LOA exceeding diagnostic thresholds for hirsutism. Greater experience improved agreement but did not eliminate variability. Patient self-scoring showed low agreement with experts and tended to overestimate severity; however, it may function as a high-sensitivity screening adjunct rather than a substitute for clinician assessment.

***Keywords**: Hirsutism; Inter-rater reliability; Modified Ferriman–Gallwey score; Patient self-assessment; Reproductive endocrinology*

GROWTH FACTORS AS KEY REGULATORS OF THE PLACENTAL SYSTEM

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The study of angiogenic and anti-angiogenic vascular growth factors in placental dysfunction is of great importance in obstetrics and perinatology. Investigation of these growth factors as predictors of placental dysfunction allows early identification of various obstetric complications, including preeclampsia and intrauterine growth restriction, which is of considerable clinical relevance. The objective of this study was to investigate serum levels of angiogenic and anti-angiogenic growth factors in women with placental dysfunction. ***Materials and methods***: A total of 47 pregnant women with placental dysfunction at 26–40 weeks of gestation were examined. The control group consisted of 35 women with physiological pregnancy. Serum levels of angiogenic and anti-angiogenic growth factors (VEGF-A, PlGF, and sFlt-1) as well as the sFlt-1/PlGF ratio were determined using enzyme-linked immunosorbent assay (ELISA). ***Results:*** Analysis of serum VEGF-A concentration in pregnant women with placental dysfunction at 26–30 weeks of gestation demonstrated a 37.6% decrease compared with the control group ($p < 0.001$). The level of PlGF was 10.4-fold lower than in women with physiological pregnancy ($p < 0.001$). Anti-angiogenic factors include soluble fms-like tyrosine kinase-1 (sFlt-1). The analysis showed that sFlt-1 levels were 4.3-fold higher compared with the control group ($p < 0.001$). The sFlt-1/PlGF ratio is an important indicator for assessing the risk of pregnancy complications. A significant increase in this ratio may indicate a higher risk of preeclampsia. Typically, sFlt-1 levels increase while PlGF levels decrease prior to the onset of clinical manifestations of preeclampsia, making this ratio a valuable marker for the early diagnosis and prediction of this complication. ***Conclusion***: Thus, the studied levels of angiogenic and anti-angiogenic growth factors represent important biomarkers for predicting pregnancy complications and may contribute to timely medical intervention aimed at preserving maternal and fetal health.

THE RELATIONSHIP BETWEEN YOUNG WOMEN'S SEXUAL HEALTH LITERACY LEVELS AND SEXUAL ATTITUDES WITH THEIR TENDENCIES IN PREMARITAL RISKY SEXUAL BEHAVIOR

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Problem statement: Youth is a critical period when the tendency to take risks increases. Premarital risky sexual behavior in young women can lead to obstetric and gynecological problems such as unwanted pregnancies, miscarriages, abortus, and exposure to sexually transmitted diseases. The study was conducted to examine the relationship between university students` tendency in premarital risky sexual behavior with their sexual health literacy levels and sexual attitudes. ***Methods***: The study was designed a cross-sectional. A total of 1064 female university students at one state universities located in the provincial center of Türkiye were included. Data were collected using the "Introductory Information Form", "Hendrick Brief Sexual Attitudes Scale (HSAS)", "Sexual Health Literacy Scale (SHLS)", and "Premarital Risky Sexual Behavior Assessment Scale for Young Women (PRSAS-YW)". One-way analysis of variance, welch test, t test, and pearson correlation analyses were conducted. ***Results***: Among the university students, 56.3% reported having sufficient knowledge about sexuality and sexual health, 59.5% expressed against premarital sexual intercourse. The students` total PRSAS-YW and total SHLS score average were 74.16 ± 13.46, 54.19 ± 10.80 respectively. Also, the sub-dimensions of the SHLS, "sexual information" and "sexual attitudes", were 36.61 ± 9.46 and 17.57 ± 4.78 and the sub-dimensions of the HSAS, "permissiveness", "birth control", "communion" and "instrumentality", were 40,37 ± 7,29, 11,93 ± 2,98, 14,85 ± 4,38 and 15,86 ± 4,04, respectively. A weak negative correlation was found between the total PRSAS-YW score and the SHLS sub-dimensions scores. A strong to moderate positive correlation was found between the total PRSAS-YW score and the sub-dimension scores of the HSAS "permissiveness" and "instrumentality". Also, a weak to moderate negative correlation was found between the total PRSAS-YW score and the sub-dimension scores of the HSAS "birth control", "communion" ($p<0.05$). ***Conclusion***: It was observed that young female university students exhibited ideal, healthy, and balanced sexual attitudes, had a low tendency in risky premarital sexual behavior, and had good levels of sexual health literacy. In this context, it is very important to provide young people with high-quality and accessible sexual and reproductive healthcare services through a multidisciplinary approach, and to increase their access to these services.

THE EFFECT OF EMOTIONAL FREEDOM TECHNIQUE ON SLEEP QUALITY AND QUALITY OF LIFE IN POSTMENOPAUSAL WOMEN: A RANDOMIZED CONTROLLED TRIAL

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Problem statement: This study aimed to determine the effect of Emotional Freedom Technique (EFT) on sleep quality and quality of life in postmenopausal women. ***Methods***: This prospective randomized controlled trial with pre-test, post-test, and follow-up assessments was conducted between July 2024 and August 2026. Data were collected between September 2024 and April 2025 at a family health center located in a city in eastern Türkiye. The study was completed with 75 postmenopausal women (intervention group, n=35; control group, n=40). Data were collected using the Participant Information Form, Utian Quality of Life Scale (UQOL), Pittsburgh Sleep Quality Index (PSQI), and Subjective Units of Experience (SUE) Scale. Women in the intervention group received individual EFT once weekly for four weeks and completed nightly positive EFT homework focused on "restful and peaceful sleep." Follow-up assessment was performed one month after the post-test. ***Results***: Baseline sleep quality and quality of life were comparable between groups ($p>.05$). A significant group × time interaction was found for PSQI total scores ($F(1.96,143.25)=70.07$, $p<.001$, $\eta p^2=.490$). In the intervention group, PSQI scores decreased from 12.14±2.70 at pre-test to 6.46±2.94 at post-test and 5.40±3.40 at follow-up, whereas no significant change occurred in the control group ($p=.724$). A significant group × time interaction was also observed for UQOL total scores ($F(1.66,121.18)=30.94$, $p<.001$, $\eta p^2=.298$). UQOL scores increased from 77.46±10.77 to 90.97±10.10 and remained high at follow-up (88.14±7.24), while no significant change occurred in the control group ($p=.203$). Improvements in both outcomes were maintained at follow-up. After controlling for baseline scores, EFT group assignment was significantly associated with lower post-test PSQI scores ($\beta=-.72$, $p<.001$; $R^2=.48$) and higher UQOL scores ($\beta=.56$, $p<.001$; $R^2=.61$). SUE scores improved significantly within all four EFT sessions ($p<.001$), with very large effect sizes ($dz=2.25–2.66$). ***Conclusion***: EFT significantly improved sleep quality and quality of life in postmenopausal women, and these improvements were maintained at one-month follow-up. EFT may be considered a complementary nursing intervention for postmenopausal women.

***Keywords**: Emotional Freedom Technique, EFT, menopause, sleep quality, quality of life*
***Disclosure of interest:** None.*
***Funding**: Supported by the Scientific Research Projects Coordination Unit of Atatürk University (Project No: TDK-2024-14351).*

DETERMINING THE RELATIONSHIP BETWEEN MIDWIFERY STUDENTS' PERCEPTIONS OF CLINICAL LEARNING AND THEIR MOTIVATION

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Problem statement: Motivation is considered a driving force that encourages individuals to take proactive steps toward achieving

defined goals. The literature indicates that students' motivation levels are associated with a sense of professional belonging, positive attitudes toward the profession, and the development of professional identity. This study aimed to determine the relationship between midwifery students' perceptions of clinical learning and their motivation. ***Methods***: This analytical cross-sectional study was conducted with midwifery students studying at a state university between May 30 and June 30, 2026 (N=272). No sampling method was used, and 95.59% of the target population participated in the study. Data were collected using the Demographic Information Form, Clinical Learning Environment Scale for Midwifery Students (MidSTEP) and (Motivation Sources and Problems Scale) GKSÖ. The data were analyzed using SPSS version 32.0. Spearman's correlation analysis, the Mann–Whitney U test, and the Kruskal–Wallis H test were used for data analysis. Statistical significance was set at $p<0.05$. ***Results***: The mean total MidSTEP and GKSÖ scores were 31.48±1.44 and 3.65±0.42, respectively. Statistically significant differences were found in MidSTEP and GKSÖ scores according to whether students had voluntarily chosen the midwifery profession ($p<0.05$). Weak positive and statistically significant correlations were found between Intrinsic Motivation and the MidSTEP total score, Skill Development, and Midwifery Practice Philosophy ($p<0.05$). Weak positive and statistically significant correlations were also found between Midwifery Practice Philosophy and the GKSÖ total score and Extrinsic Motivation ($p<0.05$). ***Conclusion***: The findings indicated that midwifery students had high perceptions of clinical learning and above-average levels of motivation.

Keywords: *Learning, midwifery, motivation, students*

GSM/VVA

RECURRENT LABIAL FUSION IN POSTMENOPAUSE: CHALLENGES IN MANAGEMENT AND THERAPEUTIC STRATEGIES

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Problem statement: Labial adhesion is a rare but impactful complication of genitourinary syndrome of menopause (GSM) associated with hypoestrogenism. The high rate of recurrence and the difficulty of managing this condition in postmenopausal women present a significant clinical challenge that needs to be addressed. ***Methods***: In this case report, a 77-year-old woman with recurrent dense labial adhesions causing chronic urinary retention and obstructive symptoms was evaluated. Prior treatments included topical estrogen and surgical lysis. We reviewed her management options and clinical outcomes. ***Results***: Despite topical estrogen therapy and surgical separation, significant readhesion occurred, emphasizing the limitations of current treatments. Surgical interventions range from simple lysis to reconstructive procedures aimed at restoring anatomy and function. While the postoperative use of topical estrogen and barrier ointments can reduce recurrence rates, these measures do not guarantee the prevention of readhesion. ***Conclusion***: The recurrence of labial adhesions in postmenopause remains an ongoing clinical challenge that necessitates multidisciplinary and individualized care. Early diagnosis and proactive management of underlying hypoestrogenism are essential to improving patient outcomes and quality of life. Further research is needed to better understand the pathophysiology and to establish standardized care protocols for this underreported condition.



GYNECOLOGY

CASE SERIES OF COLPOSUSPENSION USING TRADITIONAL MCCALL CULDOPLASTY TECHNIQUE IN A PORTUGUESE HOSPITAL

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Problem statement: McCall culdoplasty is most commonly performed during vaginal hysterectomy to preserve vaginal apex support. It is particularly adequate when the aim is to use a meshless approach, preserve the vaginal axis and even prevent the development of enterocele with low global morbidity. ***Methods***: We conducted a descriptive retrospective cohort study of women with pelvic organ prolapse (POP) submitted to hysterectomy with McCall culdoplasty at a Portuguese center between January 2013 and October 2020. ***Results***: 202 women with a mean age of 61,8 ± 8,19 years old were included. 79,4% had 2 or more vaginal deliveries, with a mean weight of vaginal delivered newborn of 3662 ± 521g; 86,6% were post-menopausal; 72,3% were sexually active; 6,5% were active smokers, 29% reported having constipation, 27,2% were obese. In this cohort, 21,8% had undergone previous pelvic surgeries (4,5% due to POP). Concerning pre-surgical evaluation, prolapses of the anterior and apical compartments were the ones most frequently observed. In 74,8% of cases there was a grade 3 or 4 prolapse. Of those, 42,4% were apical prolapses. The average C point was -0,42 and the average D point was -3,20. Concerning intra-operative information, 86,1% of women had a concomitant correction of other compartments. The mean time of surgery was 106,5 ± 26,1 minutes. 4% had intra-operative hemorrhage. Regarding the peri-operative period, the mean length of hospital stay was 2,42 days. 12,4% reported having constipation and 10,4% mentioned having pelvic pain. In the longer-term post-operative follow-up (average of 34,70 months), 2,5% developed vaginal cuff hematoma, 0,5% vaginal cuff abscess, 4,5% persistent pelvic pain and 0,5% persistent constipation. No other complications were reported. During follow-up, 30,2% of women experienced a recurrence of POP. Only 12,4% were symptomatic (60% of which had a predominant anterior recurrence). The mean time of recurrence was 16,3 months and 6,4% of all women underwent reoperation due to recurrence. ***Conclusion***: McCall culdoplasty represents a native-tissue apical suspension option that is particularly suitable during vaginal hysterectomy. It presents a low rate of serious complications and high rates of subjective and anatomic success.

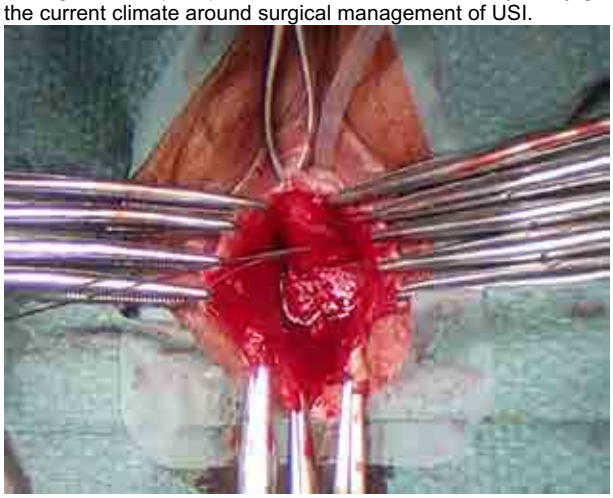
I have no conflict of interests.

SUB-URETHRAL BUTTRESSING FOR PROLAPSE ASSOCIATED URINARY STRESS INCONTINANCE: REPAIR FROM DESPAIR

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Background: Urinary stress incontinence (USI) affects many women worldwide. Prior to 1996, when the Mid Urethral Sling (MUS) procedure was first introduced by Petros and Ulmsten[1-2], gynaecologists were trained to perform a variety of time-tested surgical procedures to deal with prolapse related USI e.g. Sub-Urethral Buttressing[3], Burch Colpo-suspension[4], and Fascial sling [5]. Following the FDA approval of the MUS in 1998, the use of MUS for management of USI increased from 37% in 2000 to 97.8% in 2021 for women aged 18-64 years old in the USA [6-7]. Due to this sharp uptake of MUS, gynaecologists trained in the early 2000s were not taught to perform older procedures. Some senior gynaecologists who were taught a breadth of surgical management techniques for USI have continued to preferentially perform and modify these procedures despite global rise of MUS. Recent data has shown high rates of lifelong debilitating complications of mesh repair specifically: mesh erosion, urgency, irreparable retention of urine, and loss of sexual function. This has led to a pause on vaginal mesh repair including TVT for USI in the UK and Australia in 2018 and New Zealand in 2023[8-9]. As a result, surgical management for prolapse related USI in women has become limited. ***Methods***: This is a retrospective review of patients with prolapse associated USI managed by a senior gynaecologist using vaginal repair and Sub-Urethral Buttressing. Patient notes were reviewed to grade severity of symptoms with a validated grading tool – the Urogenital distress inventory (UDI-6). Patients were sent a UDI-6 questionnaire, asking to rate the severity of symptoms at present.

Pre and post-operative scores were compared to assess subjective procedural success. ***Results***: 159 women who had the Sub-Urethral Buttressing suture performed as part of surgical management for pelvic organ prolapse between 2014-2023 were sent the questionaire in 2025. 73 responses were received (47% response rate). 55 patients (75% of participants) had a score of <33.3, indicating a satisfactory symptom profile. ***Conclusion***: Results showed that Sub-Urethral Buttressing is effective for the management of prolapse related USI. This is a timely study given the current climate around surgical management of USI.



MODERATED E-POSTERS

MODERATED E-POSTER SESSION 01
FETOMATERNAL MEDICINE

CASE REPORT / STUDY

DETORSION OF OVARIAN TORSION IN A DI/DI TWIN GESTATION - PRINCIPLES OF LAPARASCOPIC SURGERY IN PREGNANCY

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Problem statement: Ovarian torsion is among the most common gynecologic surgical emergencies but a rare complication of pregnancy, with an estimated incidence of 1–5 per 10,000 pregnancies. Most gestational torsions occur in the first trimester, when physiologic ovarian enlargement and corpus luteum or theca lutein cysts predispose the adnexa to twisting. Diagnosis is challenging: sudden-onset lower abdominal pain, nausea, and vomiting are nonspecific, and the gravid uterus can obscure sonographic visualization. Adnexal enlargement is the most consistent ultrasound finding, whereas preserved Doppler flow does not reliably exclude torsion. Multiple gestation and assisted reproductive technology are recognized risk factors, and multiple gestation independently predicts preterm delivery after surgery. Laparoscopy with conservative detorsion is preferred given favorable maternal-fetal outcomes. We report a 20-year-old woman with a dichorionic-diamniotic twin pregnancy at 9 weeks 5 days who presented with acute right lower quadrant pain, found to have right ovarian torsion managed by laparoscopic detorsion with preservation of the ovary and both pregnancies. ***Methods***: Case report; IRB exempt. ***Results***: A 20-year-old gravida 3, para 0-0-2-0 woman with a dichorionic-diamniotic twin pregnancy at 9 weeks 5 days transferred from an outside emergency department for pelvic pain and concern for ovarian torsion. She reported one day of acute, sharp, non-radiating right lower quadrant pain peaking at 10/10, exacerbated by movement, with nausea but no vaginal bleeding, fever, dysuria, or bowel changes. Acetaminophen reduced pain to 5/10. Ultrasound showed an enlarged right ovary with torsion. She underwent diagnostic laparoscopy eith open umbilical entry with an 11-mm trocar and insufflation revealed a large right ovarian cyst with torsion and hemoperitoneum. Bilateral 5-mm accessory ports were placed under direct visualization. The left ovary was difficult to evaluate; the right ovary was detorsed and observed for over fifteen minutes. After irrigation, the ovary was stable and left in place. Postoperative-day-one transabdominal ultrasound showed reassuring fetal heart rates in both fetuses. ***Conclusion***: This case emphasizes maintaining high suspicion for ovarian torsion in any pregnant patient with acute pelvic pain and an enlarged ovary, especially in multiple gestation. Timely laparoscopy confirmed torsion, enabling conservative detorsion, avoiding oophorectomy and preserving ovarian function.

REFRACTORY HYPOKALEMIA IN THE THIRD TRIMESTER OF PREGNANCY - MANAGEMENT PRINCIPLES

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Problem statement: Moderate to severe hypokalemia in normal pregnancy is uncommon but clinically important because it can increase maternal morbidity and mortality. ***Methods***: case report, hence, IRB exempt. ***Results***: 35yo G9P7108 @ 38 weeks and 1 day gestation presenting with left foot swelling but had incidental finding of low potassium at 2.7 mmol/L. ***Conclusion***: The differential diagnosis for moderate to severe hypokalemia in pregnancy include severe hyperemesis gravidarum or other vomiting-related potassium loss, pregnancy related physiologic changes that may lower potassium, PICA, occult magnesium deficiency, Gitleman syndrome, other renal or endocrine causes of renal potassium wasting.

DOUBLE SET-UP DELIVERY PLAN IN TWIN PREGNANCIES – PRINCIPLES OF MANAGEMENT

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Problem statement: Multiple gestation pregnancies are associated with significantly higher maternal and neonatal complications compared with singleton pregnancies, including preterm birth and increased perinatal morbidity and mortality. A double set-up delivery refers to preparation for both vaginal and emergent cesarean delivery simultaneously. Following delivery of Twin A, the presentation of Twin B may change because of increased intrauterine space, leading to malpresentation, fetal distress, or the need for emergency cesarean section. ***Method***: Case study, hence, IRB exempt. **Result**: A 29-year-old multiparous female twin gestation presented at 34 weeks 0 days gestation for a scheduled delivery secondary to fetal growth restriction of both twins. She was extensively counseled about delivery options including cesarean section versus vaginal delivery. When the cervix was fully dilated she was transferred to the operating room. Under epidural anesthesia she had vaginal delivery of twin A with Apgar scores of 8 at 1 minute and 9 at 5 minutes. Thereafter, twin B had a transverse lie warranting immediate primary low transverse cesarean section with Apgar scores of 6 at 1 minute and 8 at 5 minutes. She was discharged home on postpartum day 3 in stable condition. ***Conclusion***: principal concern in twin vaginal delivery is the unpredictability of Twin B's presentation following delivery of Twin A. Malpresentation of the second twin is common and may necessitate operative vaginal delivery or cesarean section. A secondary analysis of the Twin Birth Study showed combined vaginal–cesarean-delivery occurred in approximately 7% of planned vaginal twin births and neonatal morbidity for Twin B was significantly higher in cases of combined delivery compared with successful vaginal delivery of both twins. These findings underscore the importance of rapid access to operative intervention and intrapartum preparedness when managing twin deliveries.

MANAGEMENT OF MATERNAL SUPRAVENTRICULAR TACHYCARDIA DURING PREGNANCY - A CASE REPORT AND REVIEW

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Problem statement: The managment can be controversial but is dependent on type of arrythjmia, how high tachy was, conservative agents.
Management can be challenging and depends on the underlying rhythm, maternal hemodynamic status, gestational age, and response to conservative and pharmacologic therapies. ***Methods***: Case report, no IRB required. ***Results***: A 23-year-old G1P0 at 38 weeks and 3 days of gestation was admitted for induction of labor due to gestational hypertension and polyhydramnios. Shortly after epidural placement, she developed acute tachycardia with a heart rate of 180–200 beats/min. She denied chest pain, shortness of breath, nausea, vomiting, dizziness, or loss of consciousness. Electrocardiography demonstrated supraventricular tachycardia (SVT). Internal medicine was consulted, and carotid sinus massage was attempted without successful conversion. Adenosine was deferred, and the patient was treated with intravenous fluids, intravenous lorazepam for anxiety, and intravenous metoprolol (2.5 mg followed by 5 mg 10 minutes later), resulting in improvement of her heart rate to 105–120 beats/min. Cardiology was subsequently consulted. Laboratory evaluation, including thyroid-stimulating hormone (TSH), comprehensive metabolic panel (CMP), magnesium level, and HELLP syndrome studies, demonstrated a normal TSH (1.72 µIU/mL), elevated alkaline phosphatase (224 U/L), mild hypomagnesemia (1.6 mg/dL), leukocytosis (13.3 × 10^9/L), and mild anemia (hemoglobin 11.7 g/dL). Following stabilization, labor induction was resumed with oxytocin, and the patient subsequently had an uncomplicated spontaneous vaginal delivery.
Conclusion: Supraventricular tachycardia during pregnancy can often be managed successfully with conservative measures and pregnancy-compatible pharmacologic therapy while prioritizing maternal stabilization and fetal safety. Although beta-blockers and antiarrhythmic medications may be used when clinically indicated, clinicians should consider the maternal and fetal safety profile of each agent. Many medications routinely used to treat tachyarrhythmias in nonpregnant adults can also be safely administered during pregnancy and, when appropriate, may be used for transplacental treatment of fetal tachyarrhythmias. Medical management of tahcy in pregnancy allows you to use beta blockers and anti-arrythmic medications, however, one should be careful using agents that could be terratogenic. Most of agents used in txt of adults can also be used in pregnant. Can be used in baby too if baby has arrythmia

SILENT BUT SERIOUS - ASYMPTOMATIC BRADYCARDIA AS THE ONLY SIGN OF PERIPARTUM CARDIOMYOPATHY

Avan Chu[1,2], Lina Shalaby[1,2], Ethan Montoya[1,2], Ikenna Oduocha[1,2], Ali Alhousseini[1,2], Theodore Jones[1,2], **Frederick Eruo**[1,2,3]
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Problem statement: Peripartum cardiomyopathy (PPCM) typically presents with classic signs of heart failure such as dyspnea, orthopnea, and lower extremity edema. The mechanism of PPCM remains incompletely understood and is likely multifactorial. Among existing cases, the presence of asymptomatic severe bradycardia without syncope is an exceedingly rare and unusual presentation. This case highlights the need for clinical vigilance regarding highly atypical presentations of PPCM. In addition, this case emphasizes the need for further investigation into the underlying pathophysiological mechanisms that govern PPCM. ***Method***: case report, therefore, Institutional Review Board (IRB) exempt. ***Result***: A 30-year-old G2P2 presented with incidental asymptomatic severe bradycardia of 44 bpm six days following an uncomplicated cesarean section. She was referred to an outpatient clinic for urgent evaluation, where an ECG confirmed profound bradycardia of 37 bpm without concurrent chest pain or other cardiac symptoms. Emergency Medical Services (EMS) transported the patient to the Emergency Department (ED) for further cardiac evaluation. While in the ED, she developed transient chest pain and dyspnea. Although the dyspnea briefly resolved, her bradycardia persisted in the 40s. Intravenous atropine was administered, improving her heart rate to approximately 80 bpm. However, she subsequently developed hypoxia refractory to supplemental oxygen and required BiPAP. A repeat ECG revealed no acute ischemic changes. High-sensitivity troponin was critically elevated at 145 ng/L with a delta of 108 ng/L. A transthoracic echocardiogram demonstrated a reduced left ventricular ejection fraction (LVEF) of 45%, and chest radiography revealed bilateral ground-glass opacities consistent with pulmonary edema. The patient was admitted for further management. Following an uncomplicated hospital course, she was discharged on hospital day three with scheduled outpatient follow-up for peripartum cardiomyopathy. ***Conclusion***: This case demonstrates a highly unusual manifestation of PPCM. The complete absence of syncope, despite severe bradycardia in a well-appearing patient, effectively masked her underlying systolic dysfunction and early pulmonary congestion. Clinicians must maintain a high level of suspicion for PPCM during routine postpartum visits. This case also demonstrates why further research is warranted to elucidate the precise pathophysiological mechanisms that govern PPCM in the early postpartum period.

OTHER

EARLY POSTPARTUM LOWER URINARY TRACT SYMPTOMS IN A TERTIARY HOSPITAL: A CROSS-SECTIONAL STUDY OF PREVALENCE, PREDICTORS, AND IMPACT ON QUALITY-OF-LIFE USING ICIQ FLUTS

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Introduction: Lower urinary tract symptoms (LUTS) occur frequently during the postpartum period, but there is limited local evidence surrounding their early onset, course of symptoms over time, and impact on quality of life among Filipino women. The purpose of this study was to determine the prevalence and patterns of LUTS during early postpartum hospital stays; assess the persistence/resolution of LUTS; assess their impact on quality of life; and identify sociodemographic, maternal, obstetric, neonatal, and clinical factors associated with women`s delivery at a tertiary hospital located in Southern Luzon. ***Methods***: A descriptive cross-sectional study with short-term follow-up among 211 postpartum women assessed within 24–72 hours after delivery and re-evaluated 7–10 days later at the outpatient department. Participants were recruited through consecutive sampling. Data were collected using the Filipino version of the International Consultation on Incontinence Questionnaire–Female Lower Urinary Tract Symptoms (ICIQ-FLUTS) and a structured clinical-demographic form. Descriptive statistics summarized prevalence and symptom patterns, while chi-square and independent samples t-tests examined associations at a significance level of $p < .05$. Results: LUTS were highly prevalent during the early postpartum hospital stay, with 99.1% of participants reporting at least one symptom. The most common filling symptoms were nocturia (96.2%), urgency (73.9%), and suprapubic/bladder pain (52.6%). Age, educational attainment, and medical comorbidities were significantly associated with LUTS. On the other hand, at 7–10 days postpartum, symptoms persisted (98.6%), but overall severity significantly improved across filling, voiding, and incontinence domains; daytime frequency showed no significant change. All participants reported only mild bother at follow-up. ***Conclusion***: The vast majority of the women in the current study experienced early postpartum symptoms, which were related to storage. Although it was expected that symptoms would persist during the first week after delivery, their severity decreased gradually, and the short-term impact on quality of life remained relatively minimal. According to these evidence, early postpartum LUTS screening and follow-up must be performed routinely in order to identify women who might reap advantages from counseling, monitoring, and prompt intervention.

WHEN HELLP SYNDROME DOESN'T EXPLAIN IT ALL: LESSONS FROM A CHALLENGING CASE OF THROMBOTIC THROMBOCYTOPENIC PURPURA

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Problem statement: The differential diagnosis of thrombocytopenia in pregnancy (platelet count <150.000/uL) can be challenging. When HELLP syndrome (hemolysis, elevated liver enzymes, and low platelets) is suspected, thrombotic thrombocytopenic purpura (TTP), a hematological emergency that may first present during pregnancy, should also be considered. Definitive diagnosis relies on the identification of reduced ADAMTS13 enzyme activity. ***Methods***: Clinical case presentation and literature review on differential diagnosis between HELLP syndrome and TTP. ***Results***: A 26-year-old G1P0 woman with no relevant medical history was found to have mild thrombocytopenia (103.000/uL) during the third trimester. At 39 weeks, she was admitted for premature rupture of membranes. Laboratory evaluation revealed severe thrombocytopenia (21.000/uL), elevated LDH, mildly increased transaminases, hypertension, and new-onset proteinuria, leading to a presumptive diagnosis of HELLP syndrome. Due to the hemorrhagic risk associated with cesarean delivery, labor was induced after informed consent, with neuraxial analgesia contraindicated. She had an uncomplicated vaginal delivery of a male newborn weighing 3110 g, with Apgar scores of 9/10/10. One pool of platelets and 1g of fibrinogen were administered. Postpartum, the patient received 24 hours of magnesium sulfate prophylaxis, with initial laboratory improvement. However, on postpartum day 3, despite clinical stability and no significant bleeding, hemoglobin decreased to 6 g/dL, platelet count reached 18,000/µL, and LDH reached 1200 U/L. Given the lack of sustained improvement more than 72 hours after delivery, alternative diagnoses were investigated. In the absence of other clinical manifestations and without additional laboratory abnormalities suggestive of other differential diagnoses, ADAMTS13 activity was measured and found to be reduced, confirming the diagnosis of TTP. Daily plasma exchange was initiated for six days, together with systemic corticosteroid therapy. Anti-ADAMTS13 antibodies were subsequently found to be absent, and corticosteroids were discontinued. Genetic testing revealed compound heterozygosity with identification of two mutations, one of them producing a null alele - c.1254del, p.(Phe418Leufs79), first time described, confirming the diagnosis of congenital TTP. ***Conclusion***: TTP and HELLP syndrome share overlapping features; TTP is typically associated with more severe thrombocytopenia and hemolysis and only mild transaminase elevation. Although rare, TTP should be considered when thrombocytopenia and microangiopathic hemolysis persist after delivery.

IMMUNE PROFILE ALTERATIONS IN CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: A CASE–CONTROL STUDY FROM KAZAKHSTAN

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Problem statement: The increasing use of assisted reproductive technologies (ART) has raised concerns regarding long-term immune outcomes in offspring. To date, more than 13 million children have been born worldwide following ART, including over 45,000 in Kazakhstan, reflecting the growing public health relevance of this population. Despite this rapid expansion, evidence regarding immune development in ART-conceived children remains limited and inconsistent across studies. This study aimed to evaluate immune status in children conceived through ART. ***Methods***: A case–control study included 120 ART-conceived children and 132 naturally conceived (NC) children aged under 5 years. Children born between 2019 and 2023 were enrolled. Cases involving donor gametes, surrogacy, and intrauterine insemination were excluded. Medical history and laboratory immunological assessments were performed. Statistical analysis was conducted using IBM SPSS Statistics version 26. Ordinal logistic regression was applied to adjust for prematurity, cesarean section, multiple pregnancy, and breastfeeding duration. ***Results***: ART-conceived children showed significantly higher frequencies of low immunoglobulin G and immunoglobulin A levels ($p<0.001$), absolute lymphocytosis ($p=0.001$), increased activated T-lymphocytes (CD3+HLA-DR+) ($p=0.001$), and altered T-helper cell levels ($p=0.004$) compared with NC children. Children conceived after frozen embryo transfer had higher levels of T-cytotoxic and activated T-lymphocytes compared with those conceived after fresh embryo transfer ($p=0.007$ and $p=0.020$, respectively). ART children were more frequently born preterm, delivered by cesarean section, and breastfed for less than six months. After adjustment for confounders, associations between ART and altered immunological parameters remained significant. ***Conclusions***: ART conception was associated with alterations in immune parameters during early childhood, independent of major perinatal confounders. Further longitudinal studies are required to determine the clinical significance of these findings.

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LABOR AND DELIVERY

EDUCING RETURN TO THEATRE AFTER CAESAREAN SECTION THROUGH A STANDARDISED SURGICAL-SITE INFECTION PREVENTION BUNDLE: A QUALITY IMPROVEMENT PROJECT

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Background: Return to theatre following caesarean section is an important marker of maternal morbidity and may be influenced by potentially modifiable perioperative factors, particularly surgical-site infection (SSI). This quality improvement project aimed to identify factors contributing to repeat surgery and to introduce a standardised, evidence-based SSI prevention pathway. ***Methods***: A Plan–Do–Check–Act (PDCA) methodology was used. Forty-nine women who required return to theatre following caesarean section during a 12-month baseline period were reviewed using a structured data-collection framework informed by UKOSS. Maternal characteristics, antenatal risk factors, intrapartum events, operative details, postnatal complications and indications for re-operation were evaluated. Particular attention was given to modifiable factors including obesity, diabetes, anaemia, smoking, intrapartum infection and perioperative infection-prevention measures. ***Intervention***: Baseline review identified infection as the most frequent contributory factor. A standardised caesarean SSI prevention SOP and theatre checklist was developed, informed by WHO, NICE, RCOG-aligned UK practice and ACOG recommendations. The bundle included appropriate surgical hand preparation, sterile technique, intraoperative glove change, vaginal antiseptic preparation where indicated, chlorhexidine-based skin preparation with adequate contact and drying time, and prophylactic antibiotic administration within one hour before incision. Women at increased risk of postoperative infection, including those with diabetes, BMI >40 kg/m² or intrapartum sepsis, underwent senior review and individualised antimicrobial management according to local guidance. Antenatal optimisation focused on correction of anaemia, smoking cessation, weight-management counselling and modification of other factors associated with poor wound healing. ***Results***: Before implementation, 49 women returned to theatre among approximately 4,600 deliveries, giving a rate of 1.07% (10.7 per 1,000 deliveries). Following implementation, six-month re-audit identified 12 returns to theatre among 2,540 deliveries, corresponding to 0.47% (4.7 per 1,000 deliveries). This represented an absolute reduction of 0.59 percentage points and a 55.7% relative reduction in return-to-theatre rate. Compliance with standardised SSI-prevention measures also improved. ***Conclusion***:

A structured PDCA approach identified infection as a major potentially modifiable contributor to repeat surgery following caesarean birth. Introduction of a guideline-informed SSI prevention bundle, alongside antenatal optimisation of modifiable risk factors,

was associated with an approximately 56% reduction in return to theatre and offers a practical strategy for reducing postoperative maternal morbidity.

MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT

HIGH VITAMIN D INSUFFICIENCY IN SOUTH AFRICAN PREGNANCY IS ASSOCIATED WITH HIV, BUT NOT PRE-ECLAMPSIA

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Problem statement: Vitamin D is involved in placental function, immune regulation and calcium homeostasis and has been implicated in the pathogenesis of pre-eclampsia. However, vitamin D insufficiency may be influenced by other maternal conditions, including HIV infection, particularly in settings where both HIV and pregnancy-related morbidity are prevalent. We investigated vitamin D status and its relationship with pre-eclampsia and other maternal factors among Black South African pregnant women. ***Methods***: This hospital-based cross-sectional study included 191 pregnant women in KwaZulu-Natal, South Africa, classified as normotensive (n=48), early-onset pre-eclampsia (EOPE; n=71) or late-onset pre-eclampsia (LOPE; n=72). Serum 25-hydroxyvitamin D was measured, with concentrations <20 ng/mL classified as insufficient. Vitamin D concentrations across hypertensive groups were compared using the Kruskal-Wallis test, while associations between vitamin D status and maternal and perinatal characteristics were examined using chi-square tests. ***Results***: Mean serum 25-hydroxyvitamin D was 23.18±11.1 ng/mL, with 80/191 (41.9%) women classified as vitamin-D insufficient. Median vitamin D concentrations were similar among normotensive, EOPE and LOPE groups (21, 23 and 22 ng/mL, respectively; $\chi^2(2)=2.442$, p=0.295). Vitamin D status was also not associated with pre-eclampsia group (p=0.616). In contrast, vitamin D insufficiency was significantly associated with HIV status ($\chi^2(1)=7.006$, p=0.008; Cramer`s V=0.192). Insufficiency occurred in 52.3% of HIV-positive compared with 33.3% of HIV-negative women. No significant associations were observed with anaemia, birth weight, mode of delivery or other assessed perinatal outcomes. ***Conclusions***: Vitamin D insufficiency was common in this South African pregnancy cohort but was not associated with early- or late-onset pre-eclampsia. Instead, HIV infection emerged as the principal maternal factor associated with insufficient vitamin D status. These findings suggest that vitamin D deficiency in pregnancy should be considered within the broader maternal health and nutritional context rather than as an isolated pre-eclampsia risk marker. Longitudinal studies incorporating antiretroviral therapy, dietary intake and sun exposure are needed to clarify this relationship.

REST AND RESET: EXTRACORPOREAL MEMBRANE OXYGENATION IN A SEVERE CASE OF POSTPARTUM STREPTOCOCCAL TOXIC SHOCK SYNDROME

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Introduction: Postpartum invasive Group A Streptococcus (GAS) infection is a rare but potentially fulminant cause of maternal morbidity and mortality particularly in low to middle income countries. The risk of invasive GAS infection is 20-fold increased during the postpartum period due to physiologic pregnancy immunosuppression. Infection may rapidly progress to sepsis and streptococcal toxic shock syndrome (STSS), with reported mortality rates of 25–48%. GAS remains to be the most common cause of severe maternal postpartum infection. Early recognition and aggressive multidisciplinary management are essential to improving outcomes. ***Case***: A 31 year old primigravid had an unremarkable spontaneous vaginal delivery. The patient was discharged stable. Five days post-delivery, she presented with periumbilical pain, calf pain and chills. Due to progressive dyspnea, she was initially managed as a case of possible pulmonary embolism from deep vein thrombosis. The patient rapidly deteriorated into shock and was managed with high-flow oxygen supplementation and eventual intubation and quadruple vasopressors. Ultrasound-guided abdominal paracentesis yielded a total of 670 mL greenish cloudy ascitic fluid. Piperacillin-Tazobactam was started, however, due to the rapid deterioration of the patient, the patient was placed on Extracorporeal Membrane Oxygenation (ECMO). Laparotomy was done to identify the focus of the infection, but intraoperative findings showed only copious pustular discharge with no identified abdominopelvic pathology. The patient was stabilized medically and maintained on ECMO. Culture results revealed Streptococcus pyogenes. The patient`s antibiotic regimen was shifted to Penicillin G, Clindamycin and Meropenem combination therapy. She was eventually weaned off ECMO and discharged after 18 hospital days. On long-term follow-up, the patient has had a second pregnancy with an unremarkable course. ***Conclusion***: Postpartum invasive GAS infection can present with nonspecific symptoms and progress rapidly to life-threatening STSS, even following an uncomplicated delivery. A high index of suspicion, early antimicrobial therapy, aggressive hemodynamic support, timely surgical intervention, and ECMO as rescue therapy may be lifesaving. Given the absence of an approved rapid diagnostic test for invasive GAS and the lack of a routinely available vaccine, further research into early diagnosis and preventive strategies is warranted.

MODERATED E-POSTER SESSION 02
ART/IVF/ INFERTILITY | GYNECOLOGY

ART/IVF/INFERTILITY
CLINICAL ART/IVF

PREGNANCY OUTCOMES AFTER FROZEN-THAWED TRANSFER OF CC-GRADE BLASTOCYSTS AT EARLY, MID, OR FULL STAGES

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Problem statement: Outcome data specific to blastocysts with grade C inner cell mass and trophectoderm (CC) are needed for patient counseling. We evaluated pregnancy outcomes after frozen-thawed transfer of exclusively early, mid, or full CC blastocysts. ***Methods***: This retrospective single-center study included 50 frozen-thawed embryo transfer (FET) cycles in 49 women from January 2023 through December 2025. Eligible cycles involved one or two blastocysts, all graded CC at early, mid, or full stages. Cycles involving co-transfer of hatching or hatched CC blastocysts were excluded. Outcomes included serum beta-human chorionic gonadotropin (beta-hCG) positivity and documented clinical pregnancy, defined by ultrasonographic visualization of a gestational sac. ***Results***: Twenty-one, 17, and 12 cycles were included in 2023, 2024, and 2025, respectively; corresponding mean female ages were 37.9, 39.9, and 37.7 years. A total of 62 CC blastocysts were transferred: 17 early, 25 mid, and 20 full. The mean number transferred per cycle was 1.24 ± 0.43 (mean ± standard deviation). Single- and double-blastocyst transfers accounted for 38 (76.0%) and 12 (24.0%) cycles, respectively. Serum beta-hCG positivity occurred in 3/50 cycles (6.0%). Ultrasound-confirmed clinical pregnancy was documented in 2/50 cycles (4.0%; exact 95% confidence interval, 0.5%–13.7%). All three positive results followed single-blastocyst transfer: one early CC blastocyst in a 40-year-old woman and two mid CC blastocysts in women aged 32 and 34 years. The two confirmed pregnancies were followed to 9 weeks 2 days and 18 weeks 2 days before transfer of antenatal care. The third showed rising beta-hCG, but follow-up ended before gestational-sac confirmation. ***Conclusion***: Pregnancies were observed after transfer of a single CC-grade blastocyst at the early or mid stage. These findings may inform individualized counseling regarding CC blastocyst transfer, but the small sample, absence of a comparator group, and incomplete follow-up limit prognostic interpretation.
Disclosure of interest: *None*

INFLUENCING FACTORS OF RURAL BREAST CANCER SCREENING PARTICIPATION: EVIDENCE FROM SOUTHEASTERN CHINA

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Background: Breast cancer is one of the most common malignant tumors among Chinese women. While breast cancer screening can

lower mortality by 20% and boost early detection rates and treatment outcomes, factors influencing screening participation among rural women remain insufficiently explored. ***Methods***: This cross-sectional analysis was based on baseline data from the Fuqing Cohort in southeastern China, with 13,580 local women aged 35–75 who were enrolled from 2020 to 2022. Data regarding demographic and socioeconomic characteristics, reproductive history, medical conditions, and lifestyle behaviors were collected through standardized questionnaires and clinical examinations. Univariate and multivariate logistic regression models were applied to examine the associations between relevant factors and breast cancer screening participation. Stratified analyses were further conducted to elucidate key determinants of screening behavior among this population. ***Results***: This study found 6,740 women (49.6%) participated in breast cancer screening. An inverse association between age and screening participation was observed (51-60 years old: OR= 0.84, 95% CI=0.77-0.93; >60 years old: OR=0.30, 95% CI=0.27-0.34). Being widowed was negatively associated with participation (OR=0.75, 95% CI=0.66 - 0.86). Household annual income and education level showed significantly positive associations with screening participation (Prend for both<0.001). For reproductive and health-related factors, post-menopausal women had significantly lower screening participation than pre-menopausal women (OR=0.76, 95% CI: 0.67-0.87). Women with≥3 children had lower participation than those with ≤1 child (OR=0.77, 95% CI: 0.66-0.90). This effect was more pronounced in high-SES groups. The screening participation rate of women with a personal history of chronic diseases was significantly higher than that of those without a history (OR=1.93, 95% CI: 1.78-2.09). Stratified analysis revealed a significant interaction between SES and chronic disease history (P interaction<0.001). ***Conclusion***: In the Fuqing cohort, higher family income, education, SES, and a history of chronic disease positively influenced screening participation. Factors like advanced age, widowhood, postmenopausal status, and having more children hindered women`s breast cancer screening, suggesting targeted subgroups of women for future intervention strategies.

PHARMACOKINETIC (PK) MODELLING OF HP-HMG VERSUS RECOMBINANT LUTROPIN ALFA AND FOLLITROPIN ALFA

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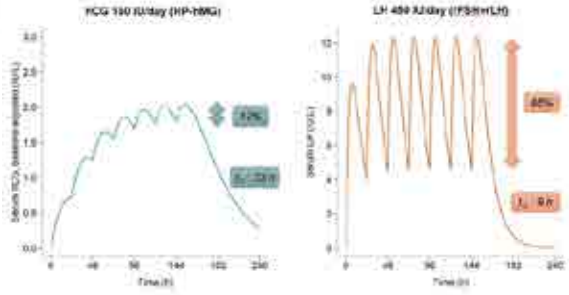
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Problem statement: Human choriogonadotropin (hCG) is known to have a longer half-life compared to luteinizing hormone (LH), however the PK of hCG in HP-hMG following daily administration have not been reported previously. ***Methods***: Serum hCG and LH concentrations from two PK studies were evaluated. The first study included 37 healthy Japanese and Caucasian women, who were pituitary downregulated with Lupron Depot. Participants received a single subcutaneous (SC) dose of either 150, 300, or 450 IU HP-hMG (Menopur® 1200 IU). After a washout period, subjects received 7 once daily doses of 150 IU HP-hMG. The second study was a two-way cross over study evaluating bioequivalence of liquid and freeze-dried formulations (Bagchus et al., 2018) in 22 women (predominantly White) who were pituitary suppressed with a combined oral contraceptive (Marvelon®). Participants received two single SC doses of 900/450 IU rFSH/rLH (Pergoveris®) separated by a washout period. Compartmental PK models (one- and two-compartment with first-order absorption) were fitted to the multiple dose PK data of HP-hMG and to the single dose mean PK data of rFSH+rLH to predict multiple dose PK profiles. ***Results:*** PK profiles for hCG were similar in Japanese and Caucasian women receiving HP-hMG. The LH PK profile was not detectable, which is consistent with the LH bioactivity in HP-hMG being mediated by hCG. The model-derived half-life of hCG in HP-hMG was 33 hours, compared to 9 hours for the half-life of rLH in rFSH+rLH. The fluctuation (100*(maximum - minimum) / average) at steady state was substantially lower for hCG (12%) than for LH (86%).



The model-derived half-life of rLH is similar to the half-life reported from individual data by Bagchus et al., 2018. The model-derived fluctuation of rLH is also well-aligned with published PK data from a different study with daily SC administration of rFSH and rLH for 7 days (le Cotonnec et al., 1998). **Conclusion**: The present analysis highlights that the longer half-life of hCG results in a more sustained systemic exposure to hCG from HP-hMG compared to LH from rFSH+rLH. The clinical implications of the difference in half-life between hCG from HP-hMG and LH from rFSH+rLH warrant further exploration.

ANDROLOGY

RELATIONSHIPS BETWEEN FUNCTIONAL SPERM TESTS AND CONVENTIONAL SEMEN PARAMETERS: A REAL-WORLD ANDROLOGICAL ANALYSIS

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Problem statement: Functional sperm tests are increasingly used to characterize male infertility beyond conventional semen analysis. We examined how sperm DNA fragmentation index (DFI) and hyaluronan-binding capacity (HBA) relate to conventional semen characteristics and to each other in a real-world andrological cohort. ***Methods***: This retrospective single-center analysis included the first evaluable fresh treatment-associated semen assessment per man. Conventional semen parameters, DFI assessed by sperm chromatin dispersion (SCD/HALO), and HBA were analyzed. Associations with male age, sperm concentration, progressive and total motility, and normal morphology were evaluated using Spearman rank correlations. The relationship between DFI and HBA was assessed in men with both tests available. ***Results***: Fifty-seven men were included. DFI was available in 37 and HBA in 41. Higher DFI was associated with older male age (ρ=0.394, p=0.016) and lower normal morphology (ρ=−0.329, p=0.047), with inverse trends for sperm concentration (ρ=−0.297, p=0.074) and progressive motility (ρ=−0.305, p=0.066). Higher HBA was associated with higher sperm concentration (ρ=0.407, p=0.008) and total motility (ρ=0.363, p=0.020), with a positive trend for progressive motility (ρ=0.301, p=0.056). DFI and HBA themselves were not significantly correlated (n=26; ρ=−0.114, p=0.580). ***Conclusion***: DFI and HBA showed different relationships with conventional semen characteristics and were not significantly correlated with each other. These findings suggest that the two functional sperm assays provide partly distinct information on male-factor biology. Their clinical relevance should therefore be evaluated separately and against clearly defined outcomes.

Disclosure of Interest*: None*

EMBRYOLOGY

SHOULD A POOR-QUALITY EUPLOID BLASTOCYST BE DISCARDED? LIVE BIRTH ACCORDING TO ASEBIR CATEGORY VERSUS GARDNER COMPONENTS IN 695 SINGLE TRANSFERS

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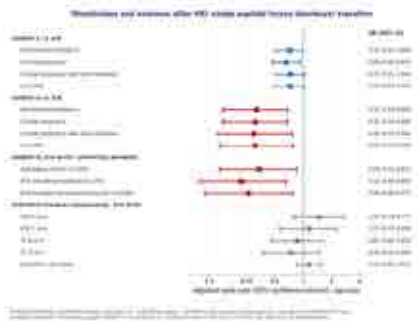
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Problem statement: Euploidy does not guarantee live birth, yet laboratories still rank euploid blastocysts by morphology. The Gardner grade (expansion, inner cell mass [ICM], trophectoderm [TE]) and the four-tier category of the Asociación para el Estudio de la Biología de la Reproducción (ASEBIR) are two encodings of the same morphological assessment, but it is unclear whether either adds prognostic value. No Latin American cohort has compared them. ***Methods***: Retrospective cohort of 695 single euploid frozen blastocyst transfers in 372 patients at a Mexican center (2016-2024), after preimplantation genetic testing for aneuploidy (PGT-A). Live birth per transfer was the primary outcome; biochemical pregnancy (positive human chorionic gonadotropin [hCG]), clinical pregnancy (gestational sac) and clinical pregnancy with fetal heartbeat were secondary outcomes. ASEBIR categories A and B were merged as reference; ASEBIR categories were assigned from static day 5-6 morphology and recoded from Gardner grades in 98.6% of cases. Binomial generalized estimating equations, clustered by patient, were adjusted for age, oocyte donation, and day 5 vs 6 (688 transfers with complete covariates). Sensitivity analyses: autologous cycles, first transfers, embryos derived from fresh oocytes. ***Results***: Live birth rates were 38.9% (A), 40.1% (B), 29.8% (C) and 14.6% (D). Category D had lower adjusted odds of live birth vs A/B (odds ratio [OR] 0.31, 95% confidence interval [CI] 0.13-0.78). Exploratory outcomes—biochemical pregnancy (OR 0.32), clinical pregnancy (OR 0.31) and clinical pregnancy with fetal heartbeat (OR 0.30)—were all reduced for D. Category C only reduced clinical pregnancy (OR 0.66). The D penalty persisted in all sensitivity analyses. No individual Gardner component predicted live birth (e.g., ICM C vs A: OR 1.15). Discrimination remained poor (area under the receiver operating characteristic curve 0.52-0.54). ***Conclusion****:* The composite ASEBIR category D—though not any individual Gardner component—was associated with a worse prognosis, with losses occurring before the gestational sac was detected. Discriminative ability remained too low for individual selection: 41 category D euploid blastocysts still resulted in 6 live births, indicating that morphology alone should not justify discarding embryos.



FERTILITY PRESERVATION

OOCYTE VITRIFICATION IN TRANSGENDER MEN: A FOUR-PATIENT SERIES AT A PUBLIC TERTIARY REPRODUCTIVE MEDICINE UNIT

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Problem statement: Transgender men are a growing but still very small group in fertility preservation programmes, and safety data are correspondingly thin. Because the population is young with a high antral follicle count, the balance between oocyte yield and hyperstimulation risk deserves explicit description even in small series. ***Methods***: Retrospective observational description of every transgender man undergoing oocyte vitrification for fertility preservation at a public tertiary Reproductive Medicine Unit between September 2021 and May 2026. Terminology follows the ICMART/ESHRE glossary and the ESHRE female fertility preservation guideline. A fifth transgender man receiving active chemotherapy was analysed within the oncological group because the gonadotoxic treatment was the indication that prompted preservation. ***Results***: Four transgender men underwent one cycle each. Median age was 25 (range 22-32) years, BMI 27.0 (20.0-30.0) kg/m2, AMH 11.6 (1.7-17.0) ng/mL and antral follicle count 26 (18-40), the highest ovarian reserve of the whole programme. Two of the four had received testosterone before preservation, for 36 and 60 months, suspended 0.5 and 9 months before stimulation. All four received a short antagonist protocol with FSH alone, started on menses, with agonist trigger. Stimulation lasted 9 (7-14) days with 2025 (1575-3150) IU of FSH. Estradiol at trigger was 3807 (1122-14711) pg/mL. Retrieval yielded 18.5 (6-45) oocytes, of which 14.5 (5-31) were oocytes in Metaphase II. The median of oocytes vitrified were 16.5 (5-37). No cycle was cancelled. Ovarian hyperstimulation syndrome occurred in 2 of 4 and both required hospital admission without serious complications; these were the only two cases in the entire 95-cycle programme. ***Conclusion***: Transgender men achieved by far the highest oocyte yield in this programme, and also accounted for both cases of ovarian hyperstimulation syndrome. With four patients no inference is possible, but the observation supports treating high antral follicle count in this population as a prompt for explicit hyperstimulation prevention strategies.

INFERTILITY/ENDOCRINOLOGY

ANTI-MÜLLERIAN HORMONE AS A DIAGNOSTIC BIOMARKER FOR POLYENDOCRINE METABOLIC OVARY SYNDROME: ASSOCIATION WITH BODY MASS INDEX

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Problem: Anti-Müllerian hormone (AMH), a key regulator of ovarian folliculogenesis, has been proposed as an alternative marker of polycystic ovarian morphology (PCOM) and a potential diagnostic marker for polyendocrine metabolic ovary syndrome (PMOS). However, standardized diagnostic thresholds remain undefined due to inter-study and population heterogeneity. The effects of obesity, hyperandrogenism, and gonadotropins on AMH levels and their relationship with PMOS remain inconclusive. ***Methods***: Fifty-six patients with PMOS and 44 age-matched controls were evaluated for serum AMH levels and their associations with age, body mass index (BMI), gonadotropins, and androgens. Among patients with PMOS, lean and obese groups were compared regarding demographic, anthropometric, metabolic, and endocrine parameters. Correlations between AMH and BMI, menstrual irregularity, metabolic parameters, and endocrine profiles were also assessed. ***Results***: Women with PMOS had significantly higher AMH levels than controls (11.49±6.14 vs. 4.88±2.26 ng/mL, $p<0.01$). ROC analysis showed that an AMH cutoff of 5.64 ng/mL discriminated PMOS from controls, with an AUC of 0.85, sensitivity of 83.3%, and specificity of 68.2%. Within the PMOS group, AMH levels were lower in obese than lean women (10.53±5.88 vs. 12.62±6.38 ng/mL), although the difference was not statistically significant. AMH was inversely correlated with BMI (Spearman's $\rho=-0.24$, $p=0.02$) and FSH ($\rho=-0.41$, $p=0.01$), and positively correlated with LH ($\rho=0.22$, $p=0.03$), but not with testosterone, DHEAS, or E2. No significant associations were observed between AMH levels and other metabolic markers or menstrual irregularity. ***Conclusions***: AMH may be a useful biomarker for PMOS, with a cutoff of 5.64 ng/mL demonstrating good diagnostic performance. The inverse association between AMH and BMI suggests that body weight may modestly influence AMH levels in women with PMOS.

IVF CASE REPORT / STUDY

PELVIC TUBERCULOSIS AS A CAUSE OF PRIMARY AMENORRHEA AND INFERTILITY: A CASE REPORT

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Problem statement: Pelvic tuberculosis, although often overlooked, is a significant cause of infertility and menstrual irregularities in women from TB-endemic regions. ***Method***: Case report, hence, institutional review board (IRB) exempt. ***Results***: This paper presents a case of a 27-year-old nulligravid with a history of childhood pelvic tuberculosis who later developed primary amenorrhea and infertility due to intrauterine adhesions. Despite completing anti-tuberculosis therapy in childhood, she remained asymptomatic until puberty, when she began experiencing cyclic pelvic pain with normal secondary sexual characteristics but no menstrual bleeding. Desire for pregnancy eventually prompted consultation 16 years later. Laboratory work-up showed normal ovarian reserve; however, imaging and hysteroscopic evaluation revealed extensive adhesions and a distorted endometrial cavity, consistent with TB-related Asherman's syndrome. Hysteroscopic adhesiolysis with IUD insertion and hormonal therapy using MPA and estrogen valerate were initiated, but recurrence of adhesions and poor endometrial growth posed a major management dilemma. While most patients with female genital tuberculosis present with secondary amenorrhea, primary amenorrhea, as in this case, is rare. The mechanisms usually involve endometrial destruction, intrauterine adhesions, or outflow tract obstruction rather than ovarian failure, explaining the patient's normal hormonal profile despite absent menstruation. ***Conclusion***: Management of TB-related intrauterine adhesions is difficult, as recurrence is common and fertility outcomes remain limited. Emerging strategies such as stem cell regeneration, platelet-rich plasma, and anti-fibrotic agents offer promise for enhancing endometrial repair and improving outcomes. This case underscores the long-term reproductive consequences of pelvic TB and highlights the importance of early recognition, integration of TB history into infertility assessments, and a holistic management plan that combines medical, surgical, psychological, and fertility counseling support.

TECHNOLOGICAL INNOVATIONS

DETERMINANTS OF EMBRYO EUPLOIDY AND ESTIMATION OF MII OOCYTE REQUIREMENTS: A MULTICENTRE PGT-A STUDY

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Problem statement: Female age is a major determinant of oocyte quality, embryo development, and chromosomal competence. Estimating the number of mature oocytes required to obtain one euploid embryo may provide a useful tool for clinical counselling and treatment planning. ***Methods***: This retrospective multicentre study included 882 IVF/ICSI cycles with PGT-A performed in six assisted reproduction centres in the Czech Republic. A total of 2,182 biopsied blastocysts derived from 6,396 mature (MII) oocytes were analysed. Embryos were stratified according to female age (<35, 35-37, 38-40, and >40 years), blastocyst category (D5A, D5B, D6A, and D6B), and semen parameters. Euploidy was evaluated only in embryos with a definitive PGT-A result. Multivariable logistic regression was used to identify independent predictors of embryo euploidy. ***Results***: Overall, 893/2,182 embryos (40.9%) were euploid, 1,052 (48.2%) were aneuploid, and 237 (10.9%) were mosaic. The proportion of euploid embryos declined from 54.2% in women aged 40 years (p<0.001). The highest euploidy rate was observed in D5A blastocysts from women aged 40 years (10.7%). Female age and blastocyst quality were independent predictors of embryo euploidy. Each additional year of female age was associated with a 3.6% reduction in the probability of obtaining a euploid embryo (OR 0.964; 95% CI 0.952-0.976; p<0.001). Semen parameters were not independently associated with embryo euploidy (p=0.605). The number of MII oocytes required to obtain one euploid embryo increased from 5.5 in women aged 40 years. ***Conclusions***: Female age is the strongest determinant of embryo euploidy. Blastocyst quality and developmental timing further refine the prediction of embryo euploidy but do not overcome the adverse effect of advanced maternal age. The number of MII oocytes required to obtain one euploid embryo increases substantially with female age and may serve as a practical tool for individualized patient counselling and IVF treatment planning.
Keywords: Embryo euploidy; PGT-A; female age; blastocyst quality; MII oocytes; IVF; reproductive ageing.
Acknowledgement: This work was supported by the Ministry of Health of the Czech Republic through the Czech Health Research Council (AZV), Grant No. NW24-08-00048.

Figure 1. Clinical Embryo Score (CES) Heatmap

Female Age	D5A	D5B	D6A	D6B
<35 years	73.9%CES 6	58.8%CES 5	45.5%CES 4	51.0%CES 5
35-37 years	48.4%CES 4	51.5%CES 5	58.1%CES 5	32.3%CES 3
38-40 years	47.8%CES 4	37.8%CES 3	45.8%CES 4	24.1%CES 2
>40 years	34.3%CES 3	24.5%CES 2	41.2%CES 4	10.7%CES 1



UTERINE PATHOPHYSIOLOGY

LOSS OF LACTOBACILLUS CRISPATUS AS A KEY FACTOR IN RECURRENT VULVOVAGINAL CANDIASIS: TRANSLATIONAL EVIDENCE FROM COHORT ANALYSIS AND TARGETED MICROBIOME RESTORATION

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Problem statement: What alterations in the vaginal microbiome are associated with recurrent vulvovaginal infections, and how might microbiome-guided interventions improve management of refractory recurrent vulvovaginal candidiasis (RVVC)? RVVC affects 7–9% of women aged 15–54, complicated by high fluconazole resistance reported in up to 70% of cases. While a healthy vaginal environment relies on Lactobacillus crispatus to maintain a protective low pH, RVVC is driven by dysbiosis—characterized by reduced Lactobacillus, elevated pH, and the overgrowth of Candida and anaerobic bacteria. Clinical integration of molecular microbiome profiling for RVVC remains limited, highlighting a need for microbiome-informed therapeutic strategies. ***Methods***: A cross-sectional study evaluated 39 women (aged 28–55) with recurrent vaginal infections using microfluidic RT-PCR to analyze 39 microorganisms from vaginal swabs. The analysis assessed microbiome profiles through Lactobacillus abundance, pH, and an exploratory L. iners/L. crispatus index (IIC). The study also detailed a 29-year-old`s refractory RVVC case to demonstrate a sequential microbiome-restorative intervention using vaginal acidification followed by targeted probiotic recolonization. Data analysis was conducted using STATA v17.0. ***Results***: Only 35.9% of participants exhibited a protective L. crispatus-dominant profile.

In contrast, L. iners-dominated or transitional microbiomes correlated with elevated pH, co-infections (Candida, Gardnerella), and advanced dysbiosis, though these cohort trends lacked statistical significance. Highlighting the clinical potential of these findings, a refractory RVVC case study characterized by severe L. crispatus and L. jensenii depletion with a microenvironment dominated by L. iners, Candida albicans and Prevotella spp. achieved clinical and microbiological remission at follow-up through microbiome-guided sequential therapy (vaginal acidification followed by L. crispatus probiotics). Ultimately, while microbiome profiling shows strong promise for personalized interventions, larger studies are required to statistically validate these associations. ***Conclusion***: Molecular microbiome profiling, particularly the L. iners/L. crispatus index, provides valuable insights into the microbial imbalances associated with recurrent vaginal infections. Furthermore, sequential microbiome-restorative approaches offer a promising alternative for managing refractory RVVC cases. However, due to the study`s cross-sectional design, larger-scale studies are required to establish causality, confirm statistical significance, and validate standardized treatment protocols.
Abbreviations: RVVC: Recurrent vulvovaginal candidiasis

LACTOBACILLUS DOMINANCE AND DYSBIOSIS IN THE ENDOMETRIAL MICROBIOME OF PERUVIAN FERTILITY PATIENTS

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Problem statement: What is the endometrial microbiome profile in Peruvian women undergoing assisted reproductive treatments and its relationship with clinical indications and age? Endometrial dysbiosis was highly prevalent among Peruvian fertility patients across all clinical indications, with increasing maternal age significantly reducing Lactobacillus dominance and increasing microbial diversity. ***Methods***: This retrospective, multicenter study (2021–2025) analyzed 469 endometrial samples from women (mean age 40.6) undergoing assisted reproductive technology (ART) across 20 fertility centers in Peru. Endometrial biopsies were evaluated using RT-qPCR to detect reproductive-associated microorganisms (bacteria, viruses, fungi, and protozoa). Microbiome profiles were classified as eubiosis (≥90% Lactobacillus) or dysbiosis, and data were evaluated using descriptive statistics, group comparisons, and principal component analysis. ***Results***: Among the 469 endometrial microbiota profiles included, the analysis revealed a strikingly low prevalence of eubiosis (21.6%), with 78.4% of patients exhibiting dysbiosis. Notably, Lactobacillus crispatus, commonly associated with a healthy endometrial microbial profile, was dominant in only 3.9% of cases. Among pathogenic microorganisms, Streptococcus spp. were the most frequently detected bacterial taxa, while Candida spp. were the most prevalent fungal pathogens. PCA explained 54% of variance, clustering patients by severe depletion of Lactobacillus rather than by specific pathogens. Crucially, dysbiosis rates did not differ significantly across clinical indications (Implantation Failure vs. Recurrent Miscarriage vs. Previous infections; $p>0.05$), suggesting a widespread alteration in this population. However, age was a significant factor; patients >35 years showed reduced Lactobacillus loads and increased diversity compared to younger cohorts ($p<0.05$). The high prevalence of dysbiosis observed in this cohort is consistent with reports from infertile populations in other regions, although it may also reflect specific features of the Peruvian population. ***Conclusion***: This first large-scale characterization of the endometrial microbiome in Peru reveals a notably low prevalence of Lactobacillus-dominant profiles. Although limited by its retrospective design and a symptomatic cohort that may overestimate dysbiosis, the findings highlight significant microbial variability. These results underscore the need for population-specific reference data to better characterize the endometrial microbiome and support future research into its potential relevance to reproductive health across Latin America.

GYNECOLOGY
CASE REPORT / STUDY

BEYOND OBESITY: GYNECOLOGIC CHALLENGES IN ADOLESCENT GIRLS WITH PRADER-WILLI SYNDROME

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Problem statement: Prader–Willi syndrome (PWS) is a rare, complex genetic disorder that affects multiple organ systems, including metabolic, endocrine, and neurological functions. Although obesity is the hallmark feature of Prader–Willi syndrome, affected females frequently present with hypogonadism, delayed puberty, and primary amenorrhea. However, evidence regarding gynecological management and long-term reproductive outcomes remains limited. This report highlights reproductive dysfunction and the challenges of gynecological management in adolescent girls with PWS, emphasizing the role of individualized hormonal management in pubertal induction and long-term reproductive care. ***Methods***: Two adolescent girls with genetically confirmed Prader–Willi syndrome were evaluated for primary amenorrhea. Treatment approaches and long-term outcomes were reviewed. ***Results***: Case 1. A 13-year-old girl with genetically confirmed PWS presented with absent pubertal development and primary amenorrhea. Clinical examination revealed Tanner stage B1P2 Hormonal evaluation demonstrated profound hypogonadotropic hypogonadism (FSH 0.3 IU/L, LH 0.0 IU/L, estradiol <37 pmol/L). Gradual pubertal induction with oral estradiol resulted in menarche, with uterine length increasing from 4.0 cm to 7.3 cm. Progressive breast development was observed, and pelvic ultrasound confirmed uterine maturation. Hormone replacement therapy, followed by combined hormonal contraception) achieved satisfactory menstrual regulation and improved dysmenorrhea. Case 2. A 15-year-old girl with genetically confirmed PWS presented with primary amenorrhea, Tanner stage B3P3, obesity (BMI 32.1 kg/m²), and acanthosis nigricans. Hormonal evaluation revealed low estradiol (<37 pmol/L), FSH 6.5 IU/L, and LH 1.09 IU/L. Pelvic ultrasound demonstrated uterine hypoplasia and ovaries with a microfollicular appearance. Oral estradiol followed by cyclic hormone replacement therapy, increased uterine length from 2.6 cm to 7.1 cm, promoted endometrial maturation, and established menstrual function. ***Conclusion***: PWS may present with diverse reproductive phenotypes ranging from profound hypogonadotropic hypogonadism to partial spontaneous pubertal development with persistent amenorrhea. These cases demonstrate that individualized hormonal management can successfully facilitate pubertal progression, uterine maturation, and establishment of menstrual function in girls with PWS. Early multidisciplinary collaboration between pediatric endocrinologists and gynecologists is essential to optimize long-term reproductive health in girls with PWS.

BEYOND PELVIC DISEASE: SUSPECTED THORACIC ENDOMETRIOSIS WITH CATAMENIAL PNEUMOTHORAX

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Problem statement: Thoracic endometriosis syndrome is an uncommon extrapelvic manifestation of endometriosis and most commonly presents as catamenial pneumothorax. Diagnosis is challenging because radiological findings may be absent or nonspecific, while histopathological confirmation may be unavailable. This case highlights the diagnostic value of cycle-related thoracic symptoms, gynecological assessment, thoracoscopic findings and response to hormonal therapy. ***Methods***: Clinical history, the temporal relationship between symptoms and menstruation, chest radiography and computed tomography, operative records, pelvic magnetic resonance imaging, gynecological examinations, transvaginal ultrasonography and response to hormonal therapy were retrospectively reviewed. ***Results***: A 35-year-old woman reported a two-year history of cyclical chest pain during menstruation and two documented episodes of spontaneous pneumothorax associated with menses.

At age 34, she developed a right-sided spontaneous pneumothorax and underwent video-assisted thoracoscopic bullectomy. Thoracoscopy demonstrated three fenestrations on the dome of the right hemidiaphragm, which were sutured. Histopathological confirmation was unavailable; therefore, thoracic endometriosis remained a probable clinical diagnosis. The menstrual association of symptoms, recurrent pneumothorax and diaphragmatic fenestrations prompted gynecological evaluation for suspected thoracic and/or diaphragmatic endometriosis. Initial transvaginal ultrasonography demonstrated a 29 × 19 mm anterior myometrial lesion consistent with focal adenomyosis. The patient was referred for pelvic magnetic resonance imaging, which showed no radiological evidence of pelvic endometriosis. Combined oral contraceptive therapy with ethinylestradiol/drospirenone (Yasmin) was initiated and continued. Follow-up ultrasonography showed a 2-mm endometrium and persistent focal anterior-wall adenomyosis. Both ovaries had normal morphology and follicular patterns, without endometriomas or pelvic masses. After approximately six months of Yasmin therapy, cyclical chest pain and dyspnea had completely resolved, with no further thoracic symptoms or documented pneumothorax. Diagnostic laparoscopy was proposed to evaluate for occult pelvic and subdiaphragmatic endometriosis and obtain histopathological confirmation if suspicious lesions were identified. ***Conclusion***: Thoracic endometriosis should be considered in women of reproductive age with menstruation-associated pneumothorax. Negative pelvic magnetic resonance imaging does not exclude small or superficial endometriotic lesions. When thoracic histology is unavailable, integrated gynecological, thoracic surgical and pulmonological assessment is essential for establishing a probable diagnosis and planning further management.

Disclosure of interest*: The authors declare no conflict of interest.*

NON-SEXUALLY TRANSMITTED TUBO-OVARIAN ABSCESS CAUSED BY EDWARDSIELLA TARDA : A CASE REPORT AND REVIEW OF LITERATURE

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Problem statement: As the first documented case of tubo-ovarian abscess (TOA) caused by *Edwardsiella tarda* in the Philippines and the third in Asia, this report (1) emphasizes the importance of considering non-sexually-transmitted causes of TOA in conservative societies where pelvic inflammatory diseases (PID) are still stigmatized, and (2) explores the interplay between cultural norms, healthcare practices, and patient well-being in the context of taboo medical conditions. It also provided a literature review of all documented cases worldwide, proposing mechanisms of development from an aquatic bacterium rarely implicated in human infections. ***Methods***: Case Report: A 41-year-old Gravida 1 Para 1 Filipino with two previous adnexal surgeries presented with an acute surgical abdomen. Transvaginal ultrasound showed a right TOA, and the patient underwent total abdominal hysterectomy with right salpingo-oophorectomy. Abscess cultures yielded pure growth of *E. tarda*. Investigation revealed daily consumption of salmon sushi for one month before symptom onset. She recovered completely following surgery and antibiotic therapy. A literature review of all documented *E. tarda* TOA cases worldwide was conducted across PubMed, Google Scholar, and local Philippine databases using a snowball search strategy. ***Results***: *E. tarda* has a very low human colonization rate (0.0073%-1%). Only seven cases of *E. tarda* TOA have been documented globally (two in Asia, five in North America). Mean patient age was 39. Four cases (57.1%) had underlying co-morbidities, two (28.6%) had previous adnexal surgeries, and three (42.9%) had PID history. Three (42.9%) reported recent ingestion of fish and oysters. Six (85.7%) underwent surgery with antibiotic therapy. All recovered without complications.

Proposed mechanisms of TOA development from raw fish consumption include hematogenous seeding after a subclinical bacteremia phase and/or bowel translocation via contiguous spread from postsurgical adhesions. ***Conclusion***: This case expands current understanding of pathogens involved in PID, emphasizing the value of (1) considering non-traditional causative organisms in clinical practice, (2) obtaining abscess cultures in settings that may subject patients to undue stigma, and (3) delivering culturally-sensitive healthcare. Future research should focus on documenting other non-sexually-transmitted pathogens' epidemiology and pathophysiology, and developing evidence-based guidelines for diverse cultural contexts.

Disclosure of interest*: None*



UTERINE ARTERY PSEUDOANEURYSM AFTER CAESAREAN DELIVERY: A RARE CAUSE OF LIFE-THREATENING HEMORRHAGE

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Problem statement**:** Uterine artery pseudoaneurysm is a rare but potentially life-threatening cause of delayed postpartum hemorrhage and may be overlooked in women presenting with recurrent bleeding after caesarean delivery. ***Methods*****:** We report the case of a 28-year-old primiparous woman who presented with recurrent episodes of abnormal uterine bleeding, culminating in acute massive vaginal hemorrhage with hemodynamic instability five months after caesarean delivery. Initial management included intravenous fluid resuscitation, transfusion of one unit of packed red blood cells, tranexamic acid and uterotonic therapy. Retained products of conception, chronic endometritis, coagulation disorders and gestational trophoblastic disease were considered in the differential diagnosis. Transvaginal colour Doppler ultrasound demonstrated a focal hypervascular uterine lesion suggestive of a vascular abnormality, and magnetic resonance angiography raised strong suspicion of a uterine artery pseudoaneurysm. ***Results*****:** Following hemodynamic stabilization and persistent bleeding despite medical management, selective embolization of the left uterine artery was performed. The procedure achieved complete hemostasis without immediate complications. The patient had an uneventful recovery and experienced no further episodes of abnormal uterine bleeding during follow-up. ***Conclusion*****:** Uterine artery pseudoaneurysm should be considered in the differential diagnosis of delayed or recurrent postpartum hemorrhage, particularly after caesarean delivery. Early recognition and appropriate vascular imaging may allow effective minimally invasive treatment and avoid more radical interventions such as hysterectomy.

IMMEDIATE POSTPARTUM NEXPLANON AS AN ALTERNATIVE TO PERMANENT STERILIZATION - A CASE REPORT AND DISCUSSION

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Problem statement: Immediate postpartum contraception is an important component of comprehensive reproductive healthcare. Ovulation may resume as early as 3 to 4 weeks postpartum, placing patients at risk for closely spaced unwanted pregnancies, which are associated with adverse maternal and neonatal outcomes, including preterm birth and low birth weight. Immediate postpartum long-acting reversible contraception (LARC) offers an opportunity to provide highly effective contraception in postpartum period. The etonogestrel implant (Nexplanon) is a type of LARC, subdermal implant originally licensed for three years but now effective contraception for five years. It is a single, flexible rod, that is safe, effective, and a reversible option that can be inserted immediately postpartum. ***Methods***: This case report describes the inpatient placement of immediate postpartum subdermal implant following

delivery. As a single patient case report, this study is exempt from institutional review board (IRB). ***Results***: A patient undergoing an elective cesarean delivery initially desired permanent sterilization with bilateral tubal ligation. However, sterilization could not be performed due to technical difficulties. Following shared decision making and contraceptive counseling, the patient elected immediate postpartum Nexplanon insertion prior to hospital discharge. The procedure was completed within minutes without complications and provided effective long-term contraception despite the inability to perform permanent sterilization. This case highlights counseling strategies, insertion techniques, and practical considerations for inpatient postpartum Nexplanon placement, while demonstrating its value as an effective alternative when permanent sterilization is not feasible or when postpartum follow up may be uncertain. ***Conclusion***: Immediate postpartum Nexplanon insertion is a safe, efficient, and patient centered contraceptive option that can be successfully integrated into inpatient obstetric care. This case underscores its role in preserving reproductive autonomy, minimizing missed opportunities for contraception, and reducing the risk of short interpregnancy intervals when permanent sterilization cannot be performed. Immediate postpartum LARC use will help in the post-Dobbs reproductive health era in the United States.

OTHER

NATURALLY OCCURRING ANTI-HCG AND ANTI-TSH IGG ANTIBODIES IN PATIENTS WITH OVARIAN CYSTS

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***Problem statement*:** We recently demonstrated that sera from patients with ovarian cysts contain naturally occurring IgG antibodies recognising human chorionic gonadotropin (hCG), potentially targeting carbohydrate-associated epitopes. Since hCG and thyroid-stimulating hormone (TSH) are structurally related glycoprotein hormones, and an association between ovarian cystic disorders and thyroid dysfunction has been reported, we hypothesised that the detected naturally occurring anti-hCG antibodies may also recognise TSH. This study investigated naturally occurring IgG antibodies to hCG and TSH and examined the relationship between their titres and binding characteristics. ***Methods*:** Serum samples were obtained from women with ovarian cysts (n = 41; age 22–61 years) and healthy age-matched controls (n = 20), following ethical approval and informed consent. Naturally occurring anti-hCG and anti-TSH IgG antibodies were detected and titrated using enzyme-linked immunosorbent assay (ELISA). The relationship between antibody titres was assessed using Pearson's correlation coefficient. TSH-binding avidity was evaluated using an indirect ELISA with ammonium thiocyanate (ATC) as a chaotropic agent. ***Results*:** Sera from 37 out of 41 (90.2 %) patients with ovarian cysts showed significantly higher IgG binding to both hCG and TSH than sera from healthy controls ($p < 0.0001$). At 1:50 dilution, mean OD values were 0.516 ± 0.049 for hCG and 0.630 ± 0.036 for TSH ($p=0.0645$). The 50% titres were 1:200 and 1:400, and endpoint titres were 1:400 and 1:3200 for anti-hCG and anti-TSH antibodies, respectively. The concentration of ATC required to reduce IgG binding to TSH by 50% was 1 M, supporting relatively strong antibody–antigen interactions. A strong positive correlation was observed between anti-hCG and anti-TSH titres ($r = 0.932$, $p < 0.0001$; at 1:200 dilution). ***Conclusion*:** Patients with ovarian cysts frequently exhibit naturally occurring IgG antibodies recognising both hCG and TSH, with higher titres observed for TSH. The strong correlation between the two antibody levels raises the possibility of shared or cross-reactive antigenic determinants suggesting a potential immunological connection between ovarian cystic disorders and thyroid-related autoimmunity and indicating the importance of further studies.

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TECHNOLOGICAL INNOVATIONS

DIGITAL HEALTH INTERVENTIONS TO ENDOMETRIOSIS: A SCOPING REVIEW

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Problem statement: Endometriosis is a chronic, estrogen-dependent condition causing endometrial-like tissue to grow outside the uterus, causing substantial clinical, psychosocial, and healthcare burden. Digital health interventions (DHIs), including mobile health (mHealth) applications, web-based platforms, telehealth, wearables, digital therapeutics, virtual reality (VR), and artificial intelligence (AI)-enabled tools, may offer new opportunities to support endometriosis management. This scoping review explores the available evidence on DHIs in endometriosis management and associated outcomes. ***Methods***: Following Joanna Briggs Institute guidance, the scoping review was reported according to PRISMA-ScR. MEDLINE and Embase were searched from January 2015 to April 2026. Records were screened using Nested Knowledge against predefined population, intervention, comparator, outcome, and study design (PICOS) criteria. Eligible studies included women with endometriosis receiving any DHI, evaluated in interventional trials and observational studies. This interim analysis presents evidence from available open access full texts; a subsequent phase will incorporate the full set of eligible publications. Data extraction focused on study characteristics and reported data availability, including technology, communication, setting, timing, and assessment scales. ***Results***: Of 1,089 records identified, 20 met inclusion criteria. Nine (45%) were randomized trials, 17 (85%) enrolled adults, 12 (60%) reported a funding source, and 5 (25%) reported regulatory approval of the intervention. France, Germany and Australia were most represented. Interventions included mHealth (6/20; 30%), web-based platforms/portals (6/20; 30%), telehealth (6/20; 30%) and VR (3/20; 15%); categories were not mutually exclusive. No study evaluated wearables, digital therapeutics, or AI-enabled tools. Clinical outcomes assessed included pelvic pain (13/20; 65%), symptom monitoring (10/20; 50%), fatigue (7/20; 35%, and dysmenorrhea (6/20; 30%). Psychosocial outcomes included emotional well-being (13/20; 65%), quality of life (10/20; 50%), mental well-being (10/20; 50%), and sexual well-being (9/20; 45%). Healthcare utilization (10/20; 50%) and treatment adherence (9/20; 45%), alongside acceptability (14/20; 70%), patient satisfaction (13/20; 65%), and feasibility (12/20; 60%). ***Conclusion***: Evidence on the use of DHIs in management of endometriosis clusters in mHealth, web-based and telehealth formats and in pain and well-being outcomes, with little coverage of wearables, AI or healthcare resource use. Comparative effectiveness of data remains sparse and heterogeneous, limiting conclusions about clinical benefit or integration into routine care.

GYNECOLOGICAL ONCOLOGY

A SINGLE SUBTLE CLUE: PERSISTENT WATERY VAGINAL DISCHARGE UNMASKING PRIMARY FALLOPIAN TUBE CARCINOMA - A CASE REPORT

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Background: Primary fallopian tube carcinoma is a rare gynecologic malignancy that often presents with nonspecific symptoms and may be mistaken for more common conditions. Persistent watery vaginal discharge in postmenopausal women is an uncommon but clinically significant presentation and may obscure the underlying diagnosis, particularly when imaging findings suggest an ovarian origin. ***Case Presentation***: We report the case of a 67-year-old Gravida 3 Para 3 postmenopausal woman who presented with persistent, non-bloody, watery vaginal discharge as her sole symptom. Initial management as a vaginal infection failed to provide relief. Subsequent transvaginal ultrasound revealed a right adnexal mass with features suspicious for malignancy, initially interpreted as a possible ovarian neoplasm. The patient underwent exploratory laparotomy with comprehensive surgical staging, including total abdominal hysterectomy with bilateral salpingo-oophorectomy, omentectomy, and pelvic lymph node dissection. Intraoperatively, a cystically dilated fallopian tube

consistent with hydrosalpinx was identified, containing a solid intraluminal mass, while both ovaries appeared atrophic and grossly unremarkable. Histopathologic examination confirmed high-grade serous carcinoma arising from the fallopian tube, with negative peritoneal cytology, uninvolved ovaries, and no lymph node metastasis. The postoperative course was uneventful, and the patient was discharged in stable condition with plans for oncologic follow-up. ***Conclusion***: This case underscores persistent watery vaginal discharge as a subtle but important clinical clue to an underlying tubal malignancy. It further highlights the potential for diagnostic misinterpretation as ovarian cancer and emphasizes the importance of maintaining clinical suspicion in postmenopausal patients with persistent, unexplained vaginal discharge.

Keywords: *fallopian tube carcinoma, watery vaginal discharge, hydrosalpinx, adnexal mass, postmenopausal*

ART/IVF/INFERTILITY - CLINICAL ART/IVF

OOCYTE AND EMBRYO QUALITY IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER PLANNING ASSISTED REPRODUCTIVE TECHNOLOGY (ART) TREATMENT

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Familial Mediterranean fever (FMF) is a hereditary autoinflammatory disease characterized by chronic activation of the innate immune system. Persistent subclinical inflammation may negatively affect the follicular microenvironment, oocyte competence, and early embryonic development. The impact of FMF on embryological outcomes in assisted reproductive technology (ART) programs remains insufficiently studied. The aim of this pilot study was to evaluate the effect of familial Mediterranean fever on oocyte and embryo quality, as well as early embryonic cleavage parameters, in in vitro fertilization (IVF) cycles. The study included 20 women of reproductive age undergoing IVF treatment. The study group consisted of 10 patients with a confirmed diagnosis of FMF, while the control group included 10 age- and BMI-matched patients without systemic inflammatory diseases. Ovarian stimulation was performed using recombinant follicle-stimulating hormone. Embryological outcomes assessed included the total number of retrieved oocytes, the number of mature (MII) oocytes, fertilization rate (2PN), early cleavage characteristics, degree of embryo fragmentation, and blastocyst quality. Patients with FMF demonstrated slower follicular growth and required higher total doses of FSH compared with controls. The FMF group showed a significantly lower number of retrieved and mature oocytes, a reduced proportion of embryos with symmetric cleavage, a higher rate of embryo fragmentation (>25%), and a lower proportion of high-quality blastocysts (AA/AB). These findings suggest that familial Mediterranean fever is associated with impaired oocyte and embryo quality in ART programs, likely due to chronic autoinflammatory activity and altered folliculogenesis. An individualized approach to ovarian stimulation and embryological management may improve IVF outcomes in patients with FMF.

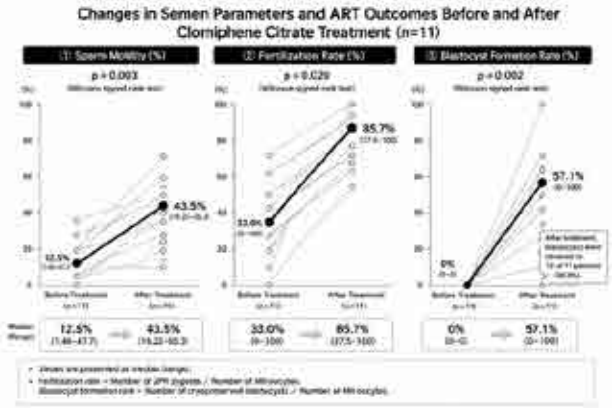
E-POSTERS FOR VIEWING

ART/IVF/INFERTILITY
ANDROLOGY

WITHIN-SUBJECT COMPARISON OF SEMEN PARAMETERS AND ART OUTCOMES BEFORE AND AFTER CLOMIPHENE CITRATE TREATMENT IN MEN WITH OLIGOZOOSPERMIA

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Problem statement: Clomiphene citrate is known to promote spermatogenesis in men with oligozoospermia. However, its effects on semen parameters and subsequent assisted reproductive technology (ART) outcomes in men undergoing intracytoplasmic sperm injection (ICSI) remain unclear. We investigated changes in semen parameters and ART outcomes before and after clomiphene citrate treatment in men with oligozoospermia who had failed to achieve blastocyst cryopreservation in an ICSI cycle before treatment. ***Methods***: We retrospectively analyzed 11 men with oligozoospermia who received clomiphene citrate treatment followed by ICSI. Patients with chromosomal abnormalities, endocrine disorders, other apparent underlying diseases, azoospermia, or necrozoospermia requiring TESE were excluded. The ICSI cycle immediately before treatment was defined as the pre-treatment cycle, and the first ICSI cycle after treatment was defined as the post-treatment cycle. Semen parameters and ART outcomes were compared within each patient. Fertilization rate was calculated as 2PN zygotes/MII oocytes, and blastocyst formation rate was calculated as cryopreserved blastocysts/MII oocytes. The Wilcoxon signed-rank test was used, with $p<0.05$ considered statistically significant. ***Results***: Eleven men were included, with a median age of 38 years (range, 28–48). Median semen volume changed from 2.78 mL (range, 0.35–4.4) before treatment to 2.97 mL (range, 1.2–5.78) after treatment (p=0.240), while sperm concentration changed from 10.5 × 10^6/mL (range, 0.8–20.0) to 14.0 × 10^6/mL (range, 2.5–66.0) (p=0.123). Sperm motility significantly increased from 12.5% (range, 1.46–47.7) to 43.5% (range, 19.23–55.3) (p=0.003). Fertilization rate increased from 33.0% (range, 0–100) to 85.7% (range, 37.5–100) (p=0.020), and blastocyst formation rate increased from 0% (range, 0–0) to 57.1% (range, 0–100) (p=0.002). Cryopreserved blastocysts were obtained in 10 of 11 patients after treatment. ***Conclusion***: Clomiphene citrate treatment was associated with improvements in sperm motility, fertilization rate, and blastocyst formation rate in men with oligozoospermia undergoing ICSI. These findings suggest that clomiphene citrate treatment may improve subsequent embryological outcomes in selected men with oligozoospermia.



CLINICAL ART/IVF

PRE-OPU PROGESTERONE AS A MARKER OF FOLLICULAR READINESS AND ITS ASSOCIATION WITH OOCYTE YIELD AND EMBRYO OUTPUT IN IVF CYCLES

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Problem statement: Optimizing oocyte yield and embryo output remains a critical challenge in IVF. While progesterone elevation on trigger day has been widely studied, the clinical significance of progesterone measured immediately prior to oocyte retrieval (pre-OPU) remains unclear. We hypothesized that pre-OPU progesterone reflects follicular readiness and may be associated with oocyte yield and downstream embryologic outcomes. ***Methods***: We conducted a retrospective analysis of 158 in vitro fertilization (IVF)/ intracytoplasmic sperm injection (ICSI) cycles from 145 patients, including repeated cycles. Pre-OPU progesterone (P4) levels were available in 154 cycles. Oocyte yield was assessed relative to the number of follicles ≥11 mm on trigger day, reflecting clinically aspirated follicles. Outcomes included retrieved oocytes, mature oocytes (MII), fertilized oocytes (2PN), and blastocyst development. Pregnancy outcomes were defined as accumulated cycle-based outcomes, including fresh and subsequent frozen embryo transfers until a positive beta-human chorionic gonadotropin (β-hCG) or fetal heart beat was achieved. Multivariable regression analysis was performed adjusting for age, anti-Müllerian hormone (AMH), stimulation protocol, and trigger strategy. ***Results***: Higher pre-OPU progesterone levels were associated with greater oocyte yield and improved downstream embryologic outcomes. Using an exploratory threshold of P4 >9 ng/mL, higher P4 cycles showed increased retrieved oocytes (24.1 vs 16.5), MII oocytes (17.6 vs 11.9), fertilized oocytes (15.3 vs 9.7), and blastocyst yield (6.7 vs 4.7). In multivariable analysis, each 1 ng/mL increase in pre-OPU P4 was independently associated with increased retrieved oocytes (increase of 0.74 per ng/mL, P<0.001),

MII oocytes (0.55 per ng/mL, P<0.001), and fertilized oocytes (0.37 per ng/mL, P=0.003). The association with blastocyst yield showed a positive trend but did not reach statistical significance. Clinical outcomes were numerically higher in higher P4 cycles, although these differences were not statistically significant. ***Conclusion***: Pre-OPU progesterone appears to reflect follicular readiness and is associated with improved oocyte yield and embryologic output. These findings suggest that pre-OPU progesterone may serve as a clinically useful biomarker to optimize IVF efficiency and support individualized treatment strategies.

Disclosure of interest: *The authors declare no conflict of interest.*

IN VITRO FERTILIZATION CHARACTERISTICS AND CLINICAL OUTCOMES IN A SINGLE FERTILITY CENTER IN DAVAO CITY, PHILIPPINES: A RETROSPECTIVE, CROSS-SECTIONAL, DESCRIPTIVE STUDY

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Problem statement: Infertility affects a substantial proportion of couples globally and in the Philippines,with significant medical, emotional,and social impacts. Despite In Vitro Fertilization being an effective assisted reproductive technology, access in the Philippines remains limited due to high costs, geographic concentration, and lack of national registries. IVF success is influenced by multiple factors, particularly maternal age, yet local data—especially from Mindanao—remain limited. This study aimed to describe demographic profiles, IVF characteristics, and clinical outcomes in a Davao City fertility center and to identify factors associated with IVF success. ***Methods***: A retrospective, cross-sectional study was conducted on IVF cycles performed from December 2015 to December 2024 at a single fertility center in Davao City, Philippines. From 670 eligible embryo transfer cycles, 300 were randomly selected. Data on demographics, infertility characteristics, IVF protocols, and outcomes were extracted using a standardized form. Descriptive and inferential analyses were performed using SPSS or Stata, with significance set at p. ***Results***: Most patients were aged 31–35 years (38.0%), had normal BMI (51.0%), and demonstrated adequate ovarian reserve (86.0%). Combined infertility was the most common etiology (33.7%). The GnRH antagonist protocol was used in 98.3% of cycles, with a mean of 9.53 ± 6.13 oocytes retrieved. All cases underwent intracytoplasmic sperm injection. Two embryos were transferred in most cycles (67.7%), with predominantly high-quality embryos (91.3%), and frozen embryo transfer was most common (81.7%).

Table 1. Demographic profiles of patients undergoing IVF (n=300)

Demographic Profiles	Frequency	Percentage (%)
Maternal Age		
25-30 years old	47	**15.67%**
31-35 years old	114	**38.00%**
36-40 years old	99	**33.00%**
>40 years old	40	**13.33%**
Body Mass Index (BMI)		
<18.5 kg/m² Underweight	6	**2.00%**
18.5 to 22.9 kg/m² Normal	153	**51.00%**
23 to 24.9 kg/m² Overweight	89	**29.67%**
25 to 29.9 kg/m² Obese Class 1	47	**15.67%**
>30 kg/m² Obese Class 2	5	**1.67%**
Duration of infertility		
1-2 years	84	**28.00%**
3-4 years	66	**22.00%**
5-6 years	68	**22.67%**
7-8 years	32	**10.67%**
9-10 years	12	**4.00%**
>10 years	38	**12.67%**
Cause of infertility		
Tubal Factor	41	13.67%
Uterine Factor	26	8.67%
Ovulatory Dysfunction	40	13.33%
Diminished Ovarian Reserve	22	7.33%
Peritoneal / Endometriosis	15	5.00%
Male Factor	45	15.00%
Combined	101	33.67%
Unexplained	10	3.33%
AMH or AFC		
AMH		
<1.2 ng/mL	4	**1.33%**
>1.2 ng/mL	7	**2.33%**
AFC		
<5 AFC	42	**14.00%**
≥ 5 AFC	258	**86.00%**

Table 2. IVF Cycle characteristics of patients undergoing IVF (n=300)

Characteristics	Frequency	Percentage (%)
Stimulation Protocol		
GnRH Antagonist	295	98.33%
GnRH Agonist Down Regulation	5	1.67%
GnRH Agonist Flare	0	0%
	Mean ± SD	**MIN-MAX**
Number of Oocytes Retrieved	9.53 ± 6.13	1-40
Fertilization Method		
Conventional	0	0%
ICSI	300	100%
Number of embryos transferred		
One	94	31.33%
Two	203	67.67%
Three	3	1.00%
Embryo Grading		
Grade 1 (G1)	128	42.67%
Grade 1- (G1-)	146	48.67%
Grade 2+ (G2+)	25	8.33%
Grade 2 (G2)	1	0.33%
Embryo Transfer Method		
Fresh	55	18.33%
Frozen	245	81.67%

The live birth rate was 42.7%, highest among women aged 31–35 years and lowest in those older than 40 years. Maternal age, embryo quality, and number of embryos transferred were significantly associated with outcomes. Multivariate analysis identified advanced maternal age, longer infertility duration, lower embryo quality, and single embryo transfer as independent predictors of poorer outcomes, while BMI, infertility cause, and stimulation protocol were not significant.

Table 3. Clinical outcomes of patients undergoing IVF (n=300)

Clinical Outcomes	Frequency	Percentage (%)
Negative	83	27.67%
Biochemical Pregnancy	44	14.67%
Clinical pregnancy	30	10.00%
Miscarriage	12	4.00%
Ectopic Pregnancy	3	1.00%
Live birth rate	128	42.67%

Table 4.1 Comparison between demographic profiles and IVF characteristics with Clinical outcomes of patients undergoing IVF (n=300)

Demographic Profiles	Negative (n = 83)	Biochemical (n = 44)	Clinical (n = 30)	Miscarriage (n = 12)	Ectopic (n = 3)	Live birth (n = 128)
Maternal Age, n (%)						
25-30 years old	10 (12.05%)	1 (2.27%)	5 (16.67%)	4 (33.33%)	0 (0%)	27 (21.09%)
31-35 years old	29 (34.94%)	13 (29.55%)	10 (33.33%)	5 (41.67%)	1 (33.33%)	56 (43.75%)
36-40 years old	30 (36.14%)	20 (45.45%)	13 (43.33%)	1 (8.33%)	2 (66.67%)	33 (25.78%)
>40 years old	14 (16.87%)	10 (22.73%)	2 (6.67%)	2 (16.67%)	0 (0%)	12 (9.38%)
Body Mass Index (BMI), n (%)						
Underweight	0 (0%)	1 (2.27%)	1 (3.33%)	0 (0%)	0 (0%)	4 (3.13%)
Normal	38 (45.78%)	26 (59.09%)	14 (46.67%)	9 (75%)	3 (100%)	63 (49.22%)
Overweight	27 (32.53%)	10 (22.73%)	11 (36.67%)	2 (16.67%)	0 (0%)	39 (30.47%)
Obese Class 1	15 (18.07%)	5 (11.36%)	4 (13.33%)	1 (8.33%)	0 (0%)	22 (17.19%)
Obese Class 2	3 (3.61%)	2 (4.55%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Duration of infertility, n (%)						
1-2 years	19 (22.89%)	7 (15.91%)	13 (43.33%)	2 (16.67%)	0 (0%)	43 (33.59%)
3-4 years	20 (24.10%)	12 (27.27%)	3 (10%)	2 (16.67%)	0 (0%)	29 (22.66%)
5-6 years	17 (20.48%)	12 (27.27%)	7 (23.33%)	4 (33.33%)	1 (33.33%)	27 (21.09%)
7-8 years	10 (12.05%)	5 (11.36%)	3 (10%)	1 (8.33%)	0 (0%)	13 (10.16%)
9-10 years	2 (2.41%)	3 (6.82%)	2 (6.67%)	1 (8.33%)	0 (0%)	4 (3.13%)
>10 years	15 (18.07%)	5 (11.36%)	2 (6.67%)	2 (16.67%)	2 (66.67%)	12 (9.38%)
Primary cause of infertility, n (%)						
Tubal Factor	10 (12.05%)	8 (18.18%)	4 (13.33%)	1 (8.33%)	0 (0%)	18 (14.06%)
Uterine Factor	11 (13.25%)	3 (6.82%)	2 (6.67%)	1 (8.33%)	1 (33.33%)	8 (6.25%)
Ovulatory Dysfunction	13 (15.66%)	5 (11.36%)	6 (20%)	2 (16.67%)	0 (0%)	14 (10.94%)
Diminished Ovarian Reserve	6 (7.23%)	4 (9.09%)	2 (6.67%)	0 (0%)	0 (0%)	10 (7.81%)
Peritoneal / Endometriosis	4 (4.82%)	2 (4.55%)	1 (3.33%)	0 (0%)	0 (0%)	8 (6.25%)
Male Factor	9 (10.84%)	6 (13.64%)	5 (16.67%)	4 (33.33%)	0 (0%)	21 (16.41%)
Combine	27 (32.53%)	16 (36.36%)	9 (30%)	4 (33.33%)	2 (66.67%)	43 (33.59%)
Unexplained	3 (3.61%)	0 (0%)	1 (3.33%)	0 (0%)	0 (0%)	6 (4.69%)
AFC, n (%)						
<5 AFC	17 (20.48%)	5 (11.36%)	6 (20%)	2 (16.67%)	0 (0%)	12 (9.38%)
≥ 5 AFC	66 (79.52%)	39 (88.64%)	24 (80%)	10 (83.33%)	3 (100%)	116 (90.63%)
IVF Characteristics						
Stimulation Protocol, n (%)						
GnRH Antagonist Protocol	80 (96.39%)	43 (97.73%)	30 (100%)	12 (100%)	3 (100%)	127 (99.22%)
GnRH Agonist Down Regulation	3 (3.61%)	1 (2.27%)	0 (0%)	0 (0%)	0 (0%)	1 (0.78%)
Number of oocytes retrieved, Mean ± SD	8.57 ± 6.15	9 ± 5.17	10.53 ± 6.65	10.50 ± 5.58	5.67 ± 3.79	10.10 ± 6.35
Number of embryos transferred, n (%)						
One	34 (40.96%)	16 (36.36%)	6 (20%)	7 (58.33%)	2 (66.67%)	29 (22.66%)
Two	49 (59.04%)	27 (61.36%)	24 (80%)	5 (41.67%)	1 (33.33%)	97 (75.78%)
Three	0 (0%)	1 (2.27%)	0 (0%)	0 (0%)	0 (0%)	2 (1.56%)
Embryo Grading, n (%)						
Grade 1 (G1)	28 (33.73%)	21 (47.73%)	12 (40.00%)	7 (58.33%)	1 (33.33%)	59 (46.09%)
Grade 1- (G1-)	47 (56.63%)	13 (29.55%)	16 (53.33%)	4 (33.33%)	2 (66.67%)	64 (50.00%)
Grade 2+ (G2+)	7 (8.43%)	10 (22.73%)	2 (6.67%)	1 (8.33%)	0 (0%)	5 (3.91%)
Grade 2 (G2)	1 (1.20%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Embryo Transfer Method, n (%)						
Fresh	11 (13.25%)	9 (20.45%)	4 (13.33%)	2 (16.67%)	1 (33.33%)	28 (21.88%)
Frozen	72 (86.75%)	35 (79.55%)	26 (86.67%)	10 (83.33%)	2 (66.67%)	100 (78.13%)

Conclusion: IVF outcomes in this center are comparable to international benchmarks. Maternal age, infertility duration, embryo quality, and number of embryos transferred are key determinants of success. These findings emphasize early intervention, individualized treatment strategies, and optimization of embryo

quality to improve IVF outcomes and support evidence-based reproductive care in the Philippine setting.

LOW ANTI-MÜLLERIAN HORMONE IS NOT ASSOCIATED WITH MISCARRIAGE IN CUMULATIVE IVF/ICSI PREGNANCIES (FRESH AND FROZEN TRANSFERS): A COMPREHENSIVE ANALYSIS OF 847 PREGNANCIES

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Problem statement: Systematic reviews have reported an association between low anti-Müllerian hormone (AMH) and miscarriage after assisted reproductive technology (ART) (pooled odds ratios [OR] 1.35–1.48). However, several primary studies found no association, mainly those that also included frozen transfers, whereas most of the positive ones were restricted to fresh transfers. We wanted to examine this question analyzing cumulative pregnancy rates. ***Methods***: Of 2,332 IVF/ICSI stimulation cycles at a tertiary hospital (2016–2024), all with an AMH determination within the six months before stimulation, 847 achieved a cumulative clinical pregnancy and 124 miscarried (14.6%). As no consensus threshold exists (definitions range 0.4–1.4 ng/mL), we pre-specified the categories used by Spanish public units: low <1.3 ng/mL, normal 1.3–3.5 and high >3.5 ng/mL, and repeated the comparison at <1.1 ng/mL for direct comparability with the pooled studies. AMH was also analysed continuously and modelled with restricted cubic splines (three knots, 10th/50th/90th percentiles). Chi-square, Cochran-Armitage trend test, logistic regression (crude and adjusted for age, body mass index and embryo quality score), receiver operating characteristic (ROC) analysis with bootstrap 95% confidence intervals (CI) and a priori power estimation (alpha 0.05, two-sided) were applied. ***Results***: Miscarriage rates were 15.8% (35/221), 14.7% (59/401) and 13.3% (30/225) across the low, normal and high categories (chi-square p=0.755; trend p=0.454), and 16.8% (31/184) versus 14.0% (93/663) for AMH <1.1 ng/mL versus higher levels (crude OR 1.24, 95% CI 0.80–1.94; adjusted 1.07, 0.66–1.73). As a continuous variable, AMH showed no association (crude OR 0.96 per ng/mL, 95% CI 0.88–1.05; adjusted 1.00, 0.91–1.10). The spline was flat across the whole AMH range (non-linearity p=0.97), with no threshold of increased risk, and discrimination was null (area under the curve 0.519, 95% CI 0.466–0.573). Power was 27–44% for the pooled effect size and 79% for OR 1.8. ***Conclusion***: In our cohort low AMH levels were not associated with a higher miscarriage risk. Our results agree with the primary studies that also included frozen transfers, although the pooled estimates of the meta-analyses found a significant association. Our findings need to be confirmed with larger studies

CESAREAN DELIVERY IN PREGNANCIES CONCEIVED VIA IN VITRO FERTILIZATION: A COMPARATIVE STUDY OF A SINGLE-CENTER COHORT AND NATIONWIDE DATA

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Problem statement: The rapid expansion of assisted reproductive technologies (ART) has raised significant questions regarding their impact on obstetric outcomes. While pregnancies achieved via in vitro fertilization are clinically categorized as high-risk, it remains debated whether the elevated rate of cesarean sections is driven by maternal factors or is intrinsic to the ART technology itself. This study compares the rates of cesarean delivery and preterm birth between a single-center in vitro fertilization cohort and the general Spanish population, assessing whether in vitro fertilization acts as an independent risk factor for surgical delivery after adjusting for maternal age. ***Methods***: A retrospective, comparative cohort study was performed. The exposed cohort comprised 715 live births resulting from in vitro fertilization (IVF) cycles at HLA Moncloa University Hospital (Madrid, Spain) between 2014 and 2019. The reference group consisted of 2,327,153 Spanish nationwide deliveries from the National Institute of Statistics database during the same period. Bivariate associations were evaluated using Chi-square and t-tests. To control for the potential confounding effect of maternal age, a weighted binary logistic regression model was constructed on the combined dataset. ***Results***: The IVF cohort displayed a significantly older demographic profile, with a mean maternal age of 37.43 years, and an increased rate of preterm birth (<37 weeks) compared to the general population (11.7% vs. 6.5%; p<0.001; OR=1.90, 95% CI: [1.51, 2.39]). The crude cesarean section rate was nearly doubled in the IVF group (42.1% vs. 25.7%; p<0.001; OR=2.10, 95% CI: [1.81, 2.44]), with a consistent excess of risk observed across all maternal age sub-groups. Multivariable logistic regression confirmed that after adjusting for maternal age, in vitro fertilization remained a highly significant, independent predictor of surgical delivery, conferring a 67.6% increase in risk (adjusted OR=1.676, 95% CI: [1.443, 1.946]; p<0.001). ***Conclusion***: Pregnancies conceived via IVF are associated with a substantial and independent risk of cesarean delivery and preterm birth. The persistent association with cesarean section after controlling for maternal age suggests that factors intrinsic to assisted reproduction, underlying infertility etiologies, or clinical management lower the threshold for surgical intervention, emphasizing the need for tailored, evidence-based obstetric protocols.

THE EFFECT OF COMPLETE ZONA PELLUCIDA REMOVAL AFTER WARMING ON CLINICAL OUTCOMES IN PGT-A FROZEN EMBRYO TRANSFER CYCLES

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Problem statement: During trophectoderm biopsy for preimplantation genetic testing for aneuploidy (PGT-A), a laser opening of approximately 25–30 µm is routinely created in the zona pellucida (ZP) to facilitate trophectoderm herniation. Consequently, PGT-A embryos inherently undergo ZP breaching, which functionally resembles assisted hatching (AH). For this reason, additional AH at the time of embryo transfer has generally been considered unnecessary in PGT-A cycles. However, evidence regarding whether further manipulation of the ZP, including complete zona removal, improves clinical outcomes remains limited and controversial. This study aimed to evaluate whether complete removal of the ZP after warming improves clinical outcomes following frozen–thawed embryo transfer (FET) in PGT-A cycles. ***Methods***: This retrospective comparative study included patients aged 29–46 years who underwent FET following PGT-A at a single fertility center between January 2024 and December 2025. After warming, embryos were allocated into two groups according to the post-warming manipulation performed: Group A, embryos transferred without further manipulation; and Group B, embryos subjected to complete removal of the ZP prior to transfer. The primary outcomes were implantation rate and clinical pregnancy rate. Categorical variables were compared using the chi-square test, and a p value < 0.05 was considered statistically significant. ***Results***: A total of 118 FET cycles were analyzed: 87 cycles without additional manipulation after warming (Group A) and 31 cycles with complete removal of the ZP prior to transfer (Group B). The implantation rate was significantly higher in Group B than in Group A (74.19% vs. 50.57%, p = 0.023). The clinical pregnancy rate was also significantly higher in Group B compared with Group A (77.78% vs. 55.56%, p = 0.043). ***Conclusion***: Complete removal of the ZP after warming of vitrified PGT-A embryos was associated with improved clinical outcomes following FET and may represent a potential adjunctive approach in PGT-A FET cycles.

DETECTION OF GENITAL TUBERCULOSIS IN INFERTILE WOMEN OF INDIAN POPULATION

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Aim: Considering Tb PCR as test of doubtful significance it was evaluated against detection of AFB on smear, MGIT culture or histopathological confirmation considered as gold standard test for genital tuberculosis diagnosis. ***Methods***: Infertile women underwent day 1 of menstruation endometrial aspiration, which was evaluated for AFB smear, MGIT culture, Tb PCR and histopathology testing. Women who were tested positive with conventional tests were treated with anti-tuberculous treatment whereas women who were positive with Tb PCR were considered false positives for tuberculosis and evaluated further with laparoscopy to evaluate for evidence of tuberculosis. During laparoscopy second sample of peritoneal fluid was tested with conventional tests and PCR.

Results: Total of 330 women underwent endometrial biopsy. AFB smear was positive in 2, MGIT culture was positive in 6 and granulomas were found in 1. The true positivity of tuberculosis was 2.7 . Tb PCR was positive in endometrial aspirate in 140 women(42%). Amongst these PCR positives 60 women underwent diagnostic hysteroscopy laparoscopy. On endoscopy no woman showed active lesions or tubercles to suggest disease. In 20 woman there were presence of flimsy adhesions in pelvis and the Tb PCR of the peritoneal fluid was negative in 19, 1 had Tb PCR positive detected in peritoneal fluid. In 40 women laparoscopy hysteroscopy had normal findings and peritoneal fluid showed positive PCR in 2 whereas 38 had negative peritoneal PCR.. Amongst 147 Tb PCR positive women 38 pregnancies occurred. After laparoscopy 21 women had intrauterine pregnancy including 1 with Tb PCR positive on peritoneal fluid. ***Conclusions***: Tb PCR cannot be used for detection of genital tuberculosis and woman may be having no evidence of disease with a positive PCR report.

WHY DOES ONE EMBRYO BECOME TWO? A 10-YEAR MULTICENTER RETROSPECTIVE STUDY OF OVER 134000 TRANSFERS

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Problem statement: Monozygotic twinning (MZT) occurs in approximately 0.4–0.45% of spontaneous pregnancies, whereas higher rates have been reported following assisted reproductive technology (ART). Despite widespread single embryo transfer (SET), MZT remains a clinically relevant complication. We aimed to determine MZT incidence after SET and identify associated clinical and laboratory factors in a large multicenter cohort. ***Methods***: This retrospective multicenter cohort included 134046 day-5 or day-6 single blastocyst transfers performed across IVIRMA Spanish clinics between January 2014 and January 2025 using autologous or donor oocytes. MZT was identified following SET by recorded monozygotic twinning and/or ultrasound evidence of ≥2 gestational sacs, embryos, or newborns; pregnancies with offspring of different sexes were excluded. Clinical, cycle, gamete, embryo and laboratory factors potentially associated with MZT were evaluated. Preselected variables were entered into multivariable binary logistic regression analysis. ***Results***: Among 134046 SETs, 66212 (49.4%) resulted in clinical pregnancies and 1412 developed MZT, corresponding to 1.05% per transfer and 2.13% per clinical pregnancy. In univariate analyses, variables differing between singleton and MZT pregnancies at p<0.01 included cycle type, oocyte origin, categorized oocyte age, semen origin, trophectoderm grade and PGT involving assisted hatching (AH-PGT). In the multivariate analysis (N=61695), hormone replacement cycles were associated with lower MZT odds versus natural cycles (adjusted odds ratio [aOR] 0.740, 95% CI 0.640–0.856; p<0.001), as was trophectoderm grade C versus A+B (aOR 0.692, 95% CI 0.567–0.845; p<0.001). AH-PGT was associated with higher MZT odds (aOR 1.187, 95% CI 1.044–1.349; p=0.009), while donor semen showed lower odds (aOR 0.809, 95% CI 0.688–0.951; p=0.010). ***Conclusion***: MZT occurred in approximately 1 in 100 SETs and 1 in 47 clinical pregnancies. AH-PGT was independently associated with increased MZT odds, whereas hormone replacement cycles, trophectoderm grade C, and donor semen were associated with reduced odds. These findings may improve patient counseling and understanding of factors associated with embryo splitting after SET.
Disclosure of interest: *None declared.*

TELOMERE-RELATED GENE EXPRESSION IN PERIPHERAL BLOOD MONONUCLEAR CELLS AFTER MILD VERSUS CONVENTIONAL OVARIAN STIMULATION IN WOMEN WITH LOW OVARIAN RESERVE

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Problem statement: Telomere maintenance is essential for genomic stability and reproductive competence. Ovarian stimulation protocols may differentially impact systemic cellular stress, but their effect on telomere-related gene expression in peripheral blood mononuclear cells (PBMCs) remains unclear. This study evaluates whether mild stimulation (MS) and conventional stimulation (CS) induce different telomere-related gene expression patterns in women with low ovarian reserve. ***Methods***: Prospective cohort study including women ≥35 years with diminished ovarian reserve treated between February 2024 and February 2025. Two groups were analysed: MS (n=25) and CS (n=36). PBMCs were collected on the day of oocyte retrieval. RNA extraction was performed using TRIzol, followed by cDNA synthesis with iScript™ kit. Gene expression of telomerase-related genes (TERT, TCAB1) and shelterin-complex genes (RAP1, POT1) was assessed by quantitative polymerase chain reaction (qPCR), using ACTIN as housekeeping gene. Clinical variables (age, anti-Müllerian hormone [AMH], gonadotropin dose) were recorded. Statistical comparisons were performed using appropriate parametric or non-parametric tests (p<0.05). ***Results***: A total of 61 patients were included. Baseline characteristics were comparable between groups. Gonadotropin dose was significantly higher in CS (2688 IU vs 804 IU; p<0.001). In PBMCs, TERT expression was significantly higher in CS compared to MS (TERT4-7: 3.0 vs 1.4, p=0.0129; TERT3-4: 3.7 vs 1.0, p=0.0038). TCAB1 expression was also increased in CS (6.9 vs 5.0; p=0.0317). Shelterin-related genes showed similar patterns: RAP1 (1.65 vs 1.1; p=0.0116) and POT1 (7.4 vs 4.9; p=0.0069) were higher in CS. Although the sample size was modest, consistent directional differences across gene categories support a potential biological effect of stimulation intensity on telomere-related pathways. ***Conclusion***: Conventional ovarian stimulation is associated with higher expression of telomere-related genes in PBMCs compared to mild stimulation in women with low ovarian reserve. These findings may reflect differences in systemic cellular stress and telomere regulation. Further studies are needed to determine the clinical implications of these molecular changes.

COST-MINIMIZATION ANALYSIS OF MERIOFERT® VERSUS MENOPUR® FOR CONTROLLED OVARIAN STIMULATION IN SPAIN

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Problem statement: Controlled ovarian stimulation (COS) is a key step in assisted reproductive technology (ART) cycles, including in vitro fertilization and intracytoplasmic sperm injection. This study presents a cost-minimization analysis (CMA) comparing Meriofert® versus Menopur® for COS in Spain, based on the randomized non-inferiority trial by Lockwood et al. (2017). ***Methods***: A CMA was conducted from the Spanish National Health System (SNHS) and private sector perspectives, considering direct medical costs only: drug acquisition, healthcare resource use, and adverse event (AE) management. For the SNHS, ex-factory price (PVL) was applied; for the private sector, retail price (PVP) plus VAT were used. The time horizon was two COS treatment cycles, in line with the mean number of cycles required to achieve pregnancy according to clinical expert opinion. In addition, given that Meriofert® achieved a higher number of oocytes retrieved (p=0.012) in Lockwood et al. (2017), the cost differential per additional oocyte retrieved was estimated. Deterministic one-way sensitivity analyses (±20%) and scenarios analyses were performed to assess robustness. ***Results***: In the base case (SNHS perspective), total cost per patient over two cycles was lower with Meriofert® than with Menopur® (€4,165 vs. €4,306), resulting in savings of €142 per patient. Findings were consistent across age subgroups (≤35 years and >35 years). In the private sector perspective (PVP+VAT), Meriofert® maintained its economic advantage (€4,353 vs. €4,548), with a saving of €195 per patient. Meriofert® was associated with lower AE-related costs. The cost differential per additional oocyte retrieved favored Meriofert®, yielded savings of €75 per additional oocyte retrieved overall, with greater benefit in women ≤35 years of age compared to >35 years. ***Conclusion***: In the Spanish setting, this CMA suggests Meriofert® is a cost-saving alternative to Menopur® for COS. Savings were mainly driven by lower drug acquisition costs and lower AE-related costs, and were sustained across sensitivity analyses. When considering the higher oocyte

yield reported by Lockwood et al., Meriofert® also provides cost savings per additional oocyte retrieved, supporting its economic value for optimizing ART resource use in Spain.
Disclosure of interest: This study was funded by IBSA.

PREVALENCE, MANAGEMENT AND REPRODUCTIVE OUTCOME OF CHRONIC ENDOMETRITIS IN RECURRENT IMPLANTATION FAILURE

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Problem statement: Recurrent implantation failure (RIF) is one of the most common problems in reproductive medicine. Embryo quality has traditionally been the most important determinant for successful implantation but the emphasis has shifted toward endometrial variables, which may have an adverse effect on the receptivity of the uterus. Chronic endometritis (CE) is defined as persistent plasma cell infiltration of the endometrium demonstrated by CD138 immunohistochemistry and has emerged as a potentially reversible contributor to reproductive failure. However, its clinical importance is still contested due to the diversity in diagnostic standards and large range in reported prevalence. ***Methods***: This review aims to evaluate women with repeated implantation failure after several unsuccessful embryo transfers. These women were submitted to a complete work-up including hysteroscopy, endometrial biopsies, and CD138 immunohistochemistry testing. ***Results***: According to the published literature, the prevalence rates of CE range from 7.7% to 63.8%, which is mostly due to the variation in the histology criteria and diagnostic methods. The majority of patients achieve histological eradication following antimicrobial therapy, and some observational studies have reported improvements in implantation, clinical pregnancy, and live delivery rates after successful treatment. However, a meta-analysis failed to demonstrate a statistically significant link between CE and recurrent implantation failure (OR 1.10, 95% CI 0.26–4.61; p=0.90), reflecting the existing controversy regarding screening and standard treatments. ***Conclusion***: In certain women, chronic endometritis may be a treatable cause of infertility, but its exact function in recurrent implantation failure is unclear.
Disclosure of interest: *No conflict of interest*

SYNTHETIC-IMAGE PRETRAINING FOR AUTOMATED CLASSIFICATION OF UTERINE FINDINGS ON HYSTEROSALPINGOGRAPHY

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Problem statement: Hysterosalpingography (HSG) is a first-line test in the infertility workup, but subtle uterine cavity abnormalities may be overlooked. Because abnormal findings are uncommon, labeled data for deep-learning model training are limited. We evaluated whether uterine findings on routine HSG could be automatically classified and whether synthetic-image pretraining improves performance. ***Methods***: We retrospectively reviewed HSG examinations performed from July 2003 through September 2023 at Seoul National University Bundang Hospital. Findings were classified as normal, congenital Müllerian anomalies, or acquired intracavitary lesions. Eligible examinations had a single definitive diagnosis and representative images. Patients were randomly divided into development and hold-out sets at an 80:20 ratio. Synthetic abnormal images were generated by deforming segmented uterine cavity contours from normal images using inpainting and were used only for pretraining. A MedSigLIP encoder with attention pooling was trained using two repetitions of five-fold cross-validation. Each of the resulting 10 models was then independently applied to the hold-out set. ***Results***: We analyzed 2,050 images from 852 HSG examinations in 847 women (mean age, 33.9 ± 4.5 years). Of the 852 examinations, 707 were normal (703 women), 33 showed congenital Müllerian anomalies (33 women), and 112 showed acquired intracavitary lesions (111 women). The mean macro area under the receiver operating characteristic curve (AUC) increased from 0.763 ± 0.062 without synthetic-image pretraining to 0.819 ± 0.039 with pretraining, with improvement observed across all 10 folds. The hold-out set included 166 women: 138 with normal findings, 6 with congenital anomalies, and 22 with acquired lesions. In this set, the mean macro AUC increased from 0.801 ± 0.021 to 0.819 ± 0.015, and balanced accuracy increased from 0.627 ± 0.075 to 0.701 ± 0.028 with pretraining. Class-specific AUCs were 0.766 for normal findings and 0.706 for acquired lesions. The mean recall for acquired lesions was 0.400. Seven of the 10 models correctly classified all six congenital anomalies. ***Conclusion***: Synthetic-image pretraining improved cross-validation performance. Automated classification of uterine findings on routine HSG was feasible; however, acquired lesions remained challenging. External validation using an independent reference standard is needed.

IMPACT OF ADDITIONAL EMBRYO WARMING BEYOND NUMBER TRANSFERRED ON PREGNANCY OUTCOMES IN CYCLES WITHOUT PREIMPLANTATION GENETIC TESTING

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Problem statement: Optimal embryo warming strategies in non-preimplantation genetic testing (non-PGT) cycles remain debated, particularly regarding the clinical value of warming additional embryos beyond the intended transfer count. ***Methods***: This retrospective cohort study analyzed non-PGT frozen-thawed embryo transfer (FET) cycles. Cycles were stratified based on whether additional embryos were warmed beyond the number actually transferred. Primary clinical outcomes evaluated included clinical pregnancy rates, implantation rates, and live birth rates, with multivariate logistic regression applied to adjust for confounding baseline variables. ***Results***: Warming additional embryos beyond the transfer count did not significantly improve overall clinical pregnancy rates or live birth rates per cycle. While survival rates for warmed embryos were high, the practice introduced increased risks of embryo wastage without conferring a distinct statistical advantage in pregnancy outcomes for routine non-PGT cycles. ***Conclusion***: Routine warming of additional embryos beyond the planned transfer count is unnecessary in non-PGT cycles, as it fails to enhance pregnancy outcomes while increasing operational and biological costs.
Disclosure of interest: *None declared.*

OOCYTE MATURITY FOLLOWING HCG-ONLY VERSUS DUAL TRIGGER IN POOR OVARIANRESPONDERS OF ADVANCED MATERNAL AGE

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Problem statement: Poor ovarian responders of advanced maternal age represent a challenging population in assisted reproduction because of their limited follicular response and low oocyte yield. Final oocyte maturation is commonly induced using human chorionic gonadotropin (hCG). A dual trigger combining a gonadotropin-releasing hormone agonist (GnRHa) with hCG may enhance oocyte maturation by inducing endogenous luteinizing hormone and follicle-stimulating hormone surges while providing sustained LH activity through hCG. Evidence regarding its effectiveness in older poor responders remains limited. This study compared follicular response and oocyte maturity following hCG-only and dual-trigger protocols in this population. ***Methods***: This retrospective study included 138 controlled ovarian stimulation cycles in patients aged ≥38 years who were classified as poor ovarian responders and underwent IVF using GnRH antagonist or agonist protocols. Cycles were divided according to the method of final oocyte maturation: hCG-only trigger (n=30) or dual trigger with GnRHa plus hCG (n=108). The unequal group sizes reflected an evolving clinical preference toward dual triggering. Age, number of follicles recorded on the trigger day, total oocytes retrieved, and

mature metaphase II (MII) oocytes were compared between groups. MII oocyte counts were analysed using Welch's t-test and the Mann–Whitney U test because of unequal group sizes and a skewed count distribution. Results: Mean age was 46.1 years in the hCG-only group and 44.6 years in the dual-trigger group. The mean numbers of follicles recorded on the trigger day were 4.5 and 5.9, respectively, while the mean numbers of retrieved oocytes were 6.5 and 6.0. The dual-trigger group had a higher mean number of MII oocytes than the hCG-only group (4.59 vs 2.33). The difference was statistically significant using Welch's t-test (p=0.005) but not using the Mann–Whitney U test (p=0.149). ***Conclusion***: Dual trigger resulted in a higher mean MII oocyte yield than hCG-only trigger in poor ovarian responders of advanced maternal age, despite similar descriptive follicular and total oocyte yields. However, this finding was not statistically significant in the non-parametric analysis and should therefore be interpreted cautiously. Prospective controlled studies with balanced groups and adjustment for potential confounders are required to determine whether dual triggering improves oocyte maturity in this population.

Disclosure of Interest: *The authors declare no competing interests.*

INTRAUTERINE PLATELET-RICH PLASMA AS A STRATEGY TO IMPROVE ENDOMETRIAL RECEPTIVITY AND BIOCHEMICAL PREGNANCY RATES IN ASSISTED REPRODUCTION

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Problem statement: Recurrent implantation failure (RIF), refractory endometrium, and recurrent pregnancy loss remain major challenges in assisted reproduction, limiting implantation success despite advances in embryo selection and laboratory techniques. Platelet-rich plasma (PRP), an autologous blood-derived product enriched with growth factors, has emerged as a promising adjuvant therapy because of its regenerative, angiogenic, and anti-inflammatory properties. This study aimed to evaluate the effect of intrauterine PRP administration on biochemical pregnancy rates in patients undergoing assisted reproduction. ***Methods***: A descriptive study was conducted at the BIOFERT Assisted Reproduction Clinic between May 2024 and January 2026. Thirteen patients with a history of recurrent implantation failure, refractory endometrium, or recurrent pregnancy loss undergoing endometrial preparation for vitrified blastocyst embryo transfer were included. PRP was prepared from autologous peripheral blood collected in 3.2% sodium citrate tubes. Two sequential centrifugation steps were performed to obtain 2 mL of PRP, which was activated with 10% calcium gluconate immediately before administration. Two intrauterine PRP instillations were performed before progesterone initiation as part of an estrogen-based endometrial preparation protocol. Endometrial thickness and biochemical pregnancy rates were evaluated. ***Results***: The mean age of the patients was 40.2 years. Mean endometrial thickness increased from 3.7 mm before PRP administration to 8.1 mm after treatment, representing a mean increase of 4.4 mm. The biochemical pregnancy rate per embryo transfer was 61.5% (8/13; 95% confidence interval [CI]: 35.5–82.3%). ***Conclusion***: Intrauterine PRP administration was associated with a clinically relevant improvement in endometrial thickness and a biochemical pregnancy rate of 61.5% in patients with poor reproductive prognosis undergoing assisted reproduction. Although these findings support PRP as a promising adjunctive therapeutic strategy, the limited sample size precludes definitive conclusions. Larger prospective controlled studies are required to confirm its efficacy and establish standardized treatment protocols.

CAN YOU EXPECT THE SAME AGAIN? AGE PREDICTS POORER REPEAT OOCYTE YIELD AFTER A SATISFACTORY FIRST RESPONSE

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Problem statement: Age-related decline in ovarian response is well recognised, but whether age affects the reproducibility of a response already demonstrated is less clear. We investigated whether increasing age was associated with lower repeat oocyte yield among women who initially achieved 4–15 oocytes. ***Methods***: This retrospective multicentre cohort included women undergoing two consecutive oocyte retrievals 1-12 months apart between January 2015 and August 2025. The first eligible pair per woman was analysed. Second-retrieval oocyte count was modelled using negative-binomial regression with age as the exposure, conditioning on first-retrieval yield and adjusting for inter-retrieval interval, treatment site and calendar year. A reduction of at least 33% in yield was a key secondary outcome. Expanded models additionally adjusted for protocol change, gonadotrophin-dose change and second-retrieval operator. Sensitivity analyses used 25% and 50% reduction thresholds and restricted analysis to women receiving the same protocol and starting dose at both retrievals. ***Results***: We included 1,458 women (mean age 35.0 years; median interval between collections 161 days). For women with comparable first-retrieval yields, every five additional years of age were associated with 12.6% fewer oocytes at the second retrieval (incidence rate ratio 0.874, 95% confidence interval 0.849–0.899; p<0.001). A reduction of at least 33% occurred in 302/1,458 women (20.7%): 17.3% aged <35 years versus 29.5% aged ≥40 years. Adjusted odds of this reduction increased by 41% per five years (odds ratio 1.41, 95% confidence interval 1.19–1.66; p<0.001). Findings were similar using 25% and 50% thresholds and persisted among women receiving the same protocol and starting gonadotrophin dose at both retrievals. ***Conclusion***: Among women who achieved 4–15 oocytes and underwent another retrieval within 12 months, increasing age was independently associated with lower subsequent oocyte yield despite accounting for the response already demonstrated. Age should therefore temper expectations based on a previous satisfactory response when counselling about further treatment.

Disclosure of interest: *None.*

DIFFERENTIAL RESPONSE TO INTRAOVARIAN LEUKOCYTE-RICH PLATELET-RICH PLASMA ACCORDING TO IVF FAILURE PHENOTYPE IN SEVERE DIMINISHED OVARIAN RESERVE: A SELF-CONTROLLED PILOT STUDY

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Problem statement: The clinical effectiveness of intraovarian leukocyte-rich platelet-rich plasma (LR-PRP) in patients with severe diminished ovarian reserve (DOR) remains controversial. It is unclear whether treatment response varies according to the underlying IVF failure phenotype. ***Methods***: This retrospective self-controlled study included patients with severe DOR (anti-Müllerian hormone ≤0.5 ng/mL) who underwent intraovarian LR-PRP followed by IVF. To define a refractory cohort, only patients with documented IVF failure within 6 months prior to PRP were included. Failure phenotypes were classified based on the most recent failed IVF cycle as: absence of oocyte retrieval, fertilization failure, or failure to obtain transferable embryos. Outcomes from the last IVF cycle before PRP were compared with those from the first IVF cycle after PRP. ***Results***: Sixteen patients were analyzed, representing a cohort with a substantial pretreatment failure burden (median 3.5 prior IVF attempts). Patients with prior failure of oocyte retrieval showed the most consistent improvement, with most achieving oocyte retrieval following LR-PRP. Among patients with prior fertilization or embryo development failure, improvements in the acquisition of transferable embryos were observed in some cases, although responses were variable. Overall, LR-PRP was associated with improved IVF cycle progression across different failure phenotypes, with the clearest effect observed in patients previously unable to reach the oocyte retrieval stage. ***Conclusion***: The clinical response to intraovarian LR-PRP appears to vary according to IVF failure phenotype. The most consistent benefit was observed in patients with prior failure of oocyte retrieval, suggesting that LR-PRP may facilitate early follicular recruitment and enable continuation of IVF cycles in this subgroup.

Disclosure of interest: *The authors declare no conflicts of interest.*

NUMBER OF FOLLICLES ≥17 MM AND PREGNANCY OUTCOMES AFTER INTRAUTERINE INSEMINATION: A RETROSPECTIVE ANALYSIS OF 7,689 CYCLES

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Problem statement: The optimal number of follicles ≥17 mm at trigger in intrauterine insemination remains controversial. Although

monofollicular stimulation may reduce multiple pregnancy risk, a moderate multifollicular response could improve treatment effectiveness. We evaluated whether developing 2–3 follicles ≥17 mm was associated with a higher clinical pregnancy rate than developing one follicle and assessed its impact on multiple pregnancy. ***Methods***: This retrospective observational study included intrauterine insemination cycles performed between 2003 and 2025 using partner or donor sperm. Canceled cycles and cycles with 0, ≥4, or an unknown number of follicles ≥17 mm were excluded. Exposure was defined as one versus 2–3 follicles ≥17 mm. Clinical pregnancy was defined as ultrasonographic visualization of at least one intrauterine gestational sac, and multiple pregnancy as ≥2 gestational sacs. Odds ratios (ORs) with 95% confidence intervals (CIs) were calculated. A logistic regression model using generalized estimating equations (GEE) adjusted for age and insemination type and accounted for repeated cycles within patients. ***Results***: Of 10,132 registered cycles, 7,689 met inclusion criteria. Clinical pregnancy rates were 8.23% with one follicle and 10.12% with 2–3 follicles (crude OR 1.26, 95% CI 1.04–1.52). After adjustment, 2–3 follicles remained independently associated with higher odds of clinical pregnancy (adjusted OR 1.29, 95% CI 1.07–1.56; p=0.008). Increasing age was inversely associated with clinical pregnancy (OR per year 0.98; p=0.050), whereas donor-sperm insemination was associated with higher odds of clinical pregnancy than partner-sperm insemination (OR 1.60; p<0.001). Among clinical pregnancies, multiple pregnancy rates were 12.48% with one follicle and 14.01% with 2–3 follicles. In adjusted analysis, 2–3 follicles were not associated with a significant increase in multiple pregnancy (OR 1.10, 95% CI 0.63–1.90; p=0.745). The favorable association was more evident in women <35 years. ***Conclusion***: Development of 2–3 follicles ≥17 mm during intrauterine insemination was associated with a modest but significant increase in clinical pregnancy, without a statistically significant increase in multiple pregnancy in this cohort. Moderate multifollicular response may improve effectiveness while maintaining an acceptable safety profile, particularly in younger women.

Disclosure of interest: *None declared.*

INDIVIDUALIZED SERUM PROGESTERONE-GUIDED TIMING OF EMBRYO TRANSFER IN HORMONE-REPLACED FROZEN EMBRYO TRANSFER

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Problem statement: In hormone-replacement frozen embryo transfer (HRT-FET), embryo transfer is conventionally scheduled after a fixed duration of progesterone exposure. However, inter-individual variation in progesterone absorption and metabolism may result in different serum progesterone concentrations despite similar exposure duration. We evaluated the variability in progesterone exposure required to achieve a predefined serum progesterone target before embryo transfer. ***Methods***: A prospective observational study was conducted over 12 months in patients undergoing HRT-FET. Serum progesterone was monitored serially, including at initiation of progesterone and subsequently according to individual response. Progesterone supplementation and embryo-transfer timing were individualized according to serum progesterone concentration, with a predefined target range of 12–20 ng/mL on the day of embryo transfer. For this analysis, 42 patients who subsequently demonstrated a positive β-hCG were included. Duration of progesterone exposure before embryo transfer and day of embryo transfer were recorded. ***Results***: Serum progesterone on the day of embryo transfer ranged from 12.1–19 ng/mL. Among 42 patients, 11 underwent Day-3, 1 Day-4 and 30 Day-5 embryo transfer. Marked inter-individual variation was observed in the duration of progesterone exposure required to achieve the target serum progesterone concentration. Twenty-three patients achieved the target after 2 days of exposure, 11 after 3 days, 3 after 4 days, 3 after 5 days, 1 after 1 day and 1 after 10 days of progesterone exposure. Despite this wide variation in exposure duration, all patients achieved the predefined serum progesterone target at embryo transfer. Among these β-hCG-positive patients, 13 achieved live birth, 23 had ongoing pregnancies and 6 miscarriage. ***Conclusion***: Substantial inter-individual variation was observed in the duration of progesterone exposure required to achieve a comparable serum progesterone concentration on the day of embryo transfer. These findings suggest that a fixed progesterone-exposure duration may not be appropriate for every patient. One progesterone-exposure duration may not fit all patients, supporting a shift from fixed-duration to individualized, serum progesterone-guided embryo-transfer scheduling. Larger comparative studies are required to validate this approach and determine its effect on reproductive outcomes.

Disclosure of interest: *The authors declare no conflict of interest.*

Keywords: *serum progesterone; frozen embryo transfer; hormone replacement therapy; individualized embryo transfer.*

OUTCOMES OF SEQUENTIAL EMBRYO TRANSFER, DAY 3 AND DAY 5, FOR PATIENTS WITH UNEXPLAINED RECURRENT IMPLANTATION FAILURE (RIF); PRELIMINARY STUDY

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Implantation is the key step for achieving pregnancy between the embryo and the endometrium (Ma et al., 2022). Transferring a competent embryo is not enough to achieve implantation; the endometrium plays an important role in the embryo implantation process. Physicians encounter a significant challenge in handling such patients with RIF (Ranisavljevic et al., 2019; Ma et al., 2022). RIF is a clinical condition that can be identified as embryo implantation failure after three fresh or frozen cycles with at least four good-quality embryos for patients under 40 years old (Zegers-Hochschild et al., 2017; Coughlan et al., 2014). ***Objective*:** The aim of this study was to evaluate the efficacy of the sequential embryo transfer (SET) approach for improving the implantation and pregnancy rates in patients with unexplained recurrent implantation failure, RIF. ***Materials and methods*:** The study was conducted at Alrayan Hospital/Habib Medical Group (HMG), IVF with IRB number =RC24.08.64. The study comprised 49 IVF-ICSI patients with unexplained RIF. These patients had the IVF-ICSI cycle initially with conventional ET and transferred 2-3 good embryos together on day 5, followed by the IVF-ICSI cycle with sequential ET, in which two to three morphologically good quality embryos were transferred during the same fresh cycle. 1-2 good cleavage stage embryos were transferred on day 3, followed by one good blastocyst transferred on day 5 of the same fresh cycle. Data from IVF cycles using conventional ET and sequential ET for the same patients were collected retrospectively. Statistical analysis performed to compare the outcomes between the conventional and sequential ET cycles. ***Results*:** The results of this study revealed that the sequential ET technique significantly enhanced the IVF outcomes, $p < 0.01$. The chemical, clinical pregnancy rate and embryo implantation rate with sequential ET were higher than with conventional ET; 44.89%, 38.77%, 38.19% vs. 10.20%, 0.0%, 0.0%, respectively. Out of 49, 13 patients got home babies (26.53%) with the sequential ET. While the same patients did not receive any babies with the conventional ET. ***Conclusions*:** In conclusion, sequential ET may be a good strategy to manage the unexplained RIF to enhance the implantation and live birth rate.

SERUM ANTI-MÜLLERIAN HORMONE PREDICTS OVARIAN RESPONSE BUT NOT CUMULATIVE LIVE BIRTH IN IVF/ICSI: A RETROSPECTIVE COHORT OF 2,332 CYCLES

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Problem statement

Serum anti-Müllerian hormone (AMH) is widely used to assess ovarian reserve and predict ovarian response. Its ability to predict cumulative live birth remains uncertain. We evaluated the association between AMH and cumulative live birth rate (CLBR) after IVF/ICSI, focusing on its shape and clinically relevant thresholds.

Methods

Retrospective cohort of IVF/ICSI stimulation cycles at a university hospital between 2016 and 2024 with AMH measured within six months before stimulation (n=2,332). Oocyte donation and fertility preservation cycles were excluded. The primary outcome was

CLBR from fresh and frozen embryo transfers among cycles with recorded outcome (n=1,949 after excluding 383 cancelled cycles). Crude and adjusted logistic regression models included age, body mass index, embryo quality score and total number of embryos. Restricted cubic splines assessed non-linearity, followed by a piecewise change-point model. Discrimination was assessed with ROC curves and bootstrap 95% confidence intervals (CI).

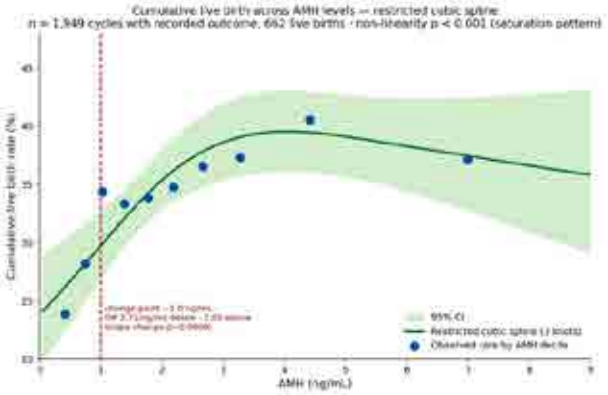
Results

CLBR was 28.3%, 35.7% and 38.8% in the low (<1.3 ng/mL), normal (1.3-3.5 ng/mL) and high (>3.5 ng/mL) AMH groups (p<0.001). In crude analysis, AMH was associated with live birth (OR 1.049 per ng/mL, 95% CI 1.008-1.091), but not after adjustment (OR 0.996, 95% CI 0.953-1.042; p=0.875). Age (OR 0.931 per year) and embryo quality (OR 1.434) remained independent predictors (both p<0.001), also in first cycles.

Spline analysis showed a non-linear saturation pattern (p for non-linearity <0.001), with a change point at approximately 1.0 ng/mL. Below this threshold, each 1 ng/mL increase in AMH increased the odds of live birth (OR 2.71, 95% CI 1.54-4.75; adjusted OR 2.31). Above 1.0 ng/mL, representing 80% of the cohort, the association was flat (OR 1.02 per ng/mL). AMH alone showed poor discrimination (AUC 0.554, 95% CI 0.528-0.580).

Conclusion

The association between AMH and cumulative live birth is confined to very low AMH levels. Below approximately 1 ng/mL, live birth probability increases with increasing AMH, whereas above this threshold further increases provide little additional prognostic information. Maternal age and embryo quality are more informative predictors. Women with diminished reserve achieved a CLBR close to 30%; therefore, low AMH alone should not discourage or exclude women from IVF/ICSI.



EMBRYOLOGY

ET-DAY PROGESTERONE, ENDOMETRIAL PREPARATION, AND FIRST EMBRYO TRANSFER SUCCESS IN REAL-WORLD PGT-A CYCLES

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Problem statement: In preimplantation genetic testing for aneuploidy (PGT-A) cycles, euploid embryo selection partially controls embryo competence; therefore, endometrial preparation and luteal hormonal environment may become important determinants of transfer success. While cumulative pregnancy rates are commonly reported, pregnancy at the first embryo transfer may better reflect treatment efficiency and reduce repeated transfer burden. We evaluated whether endometrial preparation protocol, embryo transfer-day serum progesterone (P4), and endometrial thickness were associated with clinical pregnancy in real-world PGT-A embryo transfer cycles. ***Methods***: We retrospectively reviewed OPU-PGT-A cycles performed in 2024-2025 and matched them with subsequent embryo transfer records. Endometrial preparation was classified as natural, modified natural, or hormone replacement therapy (HRT). ET-day P4, endometrial thickness, transfer order, and outcomes were analyzed. Clinical pregnancy was defined as positive serum β-hCG followed by gestational sac visualization. Fetal heartbeat was assessed when available. Continuous variables were compared using t-test or Mann-Whitney U test, and categorical variables using chi-square or Fisher`s exact test. ***Results***: A total of 193 matched PGT-A embryo transfer cycles were analyzed. ET-day P4 was available in 186 cycles and endometrial thickness in 137 cycles. Clinical pregnancy rates differed among protocols: 46.9% in HRT, 42.6% in modified natural, and 21.2% in natural cycles (P=0.031). Among first embryo transfer attempts, clinical pregnancy rates were 44.0%, 44.7%, and 18.8%, respectively (P=0.029). ET-day P4 differed among protocols, with lower median P4 in natural cycles than in HRT and modified natural cycles (19.6, 25.9, and 26.4 ng/mL; P=0.004). Clinical pregnancy cycles showed higher ET-day P4 than non-pregnancy cycles (27.2 vs. 23.4 ng/mL; P=0.107). Endometrial thickness was not associated with clinical pregnancy using an 8-mm threshold. ***Conclusion***: In real-world PGT-A embryo transfer cycles, first-transfer clinical pregnancy was lower in natural cycles, which also showed lower ET-day P4 levels. Transfer order and luteal hormonal environment should be considered when interpreting PGT-A outcomes and counseling patients. Endometrial thickness alone did not explain clinical pregnancy differences. Prospective studies including live birth outcomes are warranted.

Disclosure of interest*: None declared.*

PREGNANCY OUTCOME USING EMBRYOGLUE IN PATIENTS WITH PREVIOUS FAILED IMPLANTATION UNDERGOING FROZEN-THAWED EMBRYO TRANSFER: A RETROSPECTIVE STUDY

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Introduction: Implantation failure remains a major challenge in in vitro fertilization (IVF) treatment. Implantation is a complex, multistep process, and embryo transfer represents one of the most critical stages in assisted reproduction. This retrospective study aimed to evaluate the efficacy of the hyaluronic acid-enriched transfer medium, EmbryoGlue, in improving pregnancy outcomes among patients with previous implantation failure undergoing frozen-thawed embryo transfer (FET) cycles at our IVF centre. ***Methods***: A total of 729 patients aged 28–42 years with a history of implantation failure who underwent regulated frozen-thawed embryo transfer cycles between 2023 and 2025 were retrospectively analyzed. Among them, 155 patients with previous failed FET cycles received EmbryoGlue as the transfer medium. Embryos were placed in the hyaluronic acid-enriched medium and incubated for a minimum of 10 minutes and up to 4 hours in a tri-gas incubator prior to embryo transfer into the uterine cavity. Embryo transfer was performed using a Guardia Access Embryo Transfer Catheter. A maximum of two embryos were transferred at either Day 5 blastocyst stage or Day 3 cleavage stage. Positive pregnancy is defined as a serum β-hCG concentration >25 IU/L measured on Day 12 or Day 14 after embryo transfer respectively. ***Results***: In the EmbryoGlue group, 60 of 155 patients achieved clinical pregnancy, corresponding to a pregnancy rate of 38.7%. In the control group, 283 of 574 patients achieved clinical pregnancy, corresponding to a pregnancy rate of 49.3%. The clinical pregnancy rate was significantly lower in the EmbryoGlue group compared with the control group (38.7% vs. 49.3%, p < 0.05). ***Conclusion***: Our study demonstrated no improvement in pregnancy outcomes with the use of EmbryoGlue as a transfer medium in patients with previous implantation failure undergoing FET cycles. Although pregnancies were achieved in patients receiving EmbryoGlue, no superior clinical benefit was observed compared with the conventional transfer medium group. Further large-scale randomized controlled trials are required to better evaluate the role of hyaluronic acid-enriched transfer media in patients with recurrent implantation failure.

DIFFERENTIAL EXPRESSION OF MIR-99A AND MIR-143 IN SPERM AND FOLLICULAR FLUID: IMPLICATIONS FOR EMBRYO QUALITY IN ASSISTED REPRODUCTIVE TECHNOLOGY

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Problem statement: MicroRNAs (miRNAs) are emerging regulators of reproductive physiology and represent promising non-invasive biomarkers of infertility and assisted reproductive technology (ART) outcomes. However, the biological roles of miR-99a and miR-143 in both male and female reproductive compartments remain insufficiently understood. This study investigated the expression of miR-99a and miR-143 in paired sperm and follicular fluid (FF) samples from infertile couples undergoing ART and explored their associations with reproductive, hormonal, and embryological parameters. ***Methods***: Paired semen and FF samples were prospectively collected from 36 infertile couples undergoing in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI). Total ribonucleic acid(RNA) was extracted, and miR-99a and miR-143 expression was quantified using quantitative real-time polymerase chain reaction (qRT-PCR), with glucose-6-phosphate dehydrogenase(G6PD) as the reference gene. Non-parametric statistical analyses were performed to compare miRNA expression between sample types and to evaluate associations with semen characteristics, female hormonal profile, ovarian response, and embryo quality. ***Results***: Both miRNAs showed significant differential expression between sperm and FF. MiR-99a expression was significantly higher in sperm than in FF ($p < 0.001$), while miR-143 also showed higher expression in sperm ($p = 0.004$). No significant associations were observed between either miRNA and conventional semen parameters, including sperm motility and total sperm count. In contrast, significant positive correlations were identified between miRNA expression and anti-Müllerian hormone (AMH). Additionally, miR-143 expression was positively associated with follicle-stimulating hormone (FSH) levels and negatively correlated with the number of retrieved oocytes. Importantly, miR-143 expression differed significantly according to embryo quality ($p = 0.046$), with higher expression observed in embryos of excellent morphology than in poor-quality embryos. ***Conclusion***: MiR-99a and miR-143 exhibit distinct expression profiles between sperm and follicular fluid, suggesting tissue-specific roles in human reproduction. Among the two miRNAs, miR-143 demonstrated the strongest clinical associations, particularly with embryo quality and ovarian reserve-related parameters, supporting its potential as a biomarker of embryo quality in ART. Larger prospective studies are warranted to validate these findings and further clarify the biological mechanisms underlying miRNA-mediated reproductive regulation.
Disclosure of interest: *The authors declare no conflicts of interest.*

BEYOND THE BINARY FERTILIZATION CHECK: DEVELOPMENTAL OUTCOMES AND RECOVERABLE POTENTIAL ACROSS ATYPICAL PRONUCLEAR PHENOTYPES IN 18,150 OOCYTES

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Problem statement: A single static fertilization check can misclassify a dynamic process. Disappearing/delayed two-pronuclear (2PN) denotes zygotes with no visible pronuclei at the scheduled check but subsequent cleavage, consistent with or without pronuclei having faded before the check or formed after it. One-pronuclear (1PN), ≥3PN (three or more pronuclei), and N-cell phenotypes may also fall outside binary reporting. We quantified prevalence, developmental outcomes, and recoverable potential. ***Methods***: Retrospective cohort of 18,150 pronuclear (PN)-scored inseminated oocytes from 1,977 autologous retrieval cycles, February 2025–July 2026. Fertilization was assessed once by static microscopy; time-lapse and preimplantation genetic testing (PGT) cycles were excluded, and transfers were untested. Categories were standard 2PN, disappearing/delayed 2PN, 1PN-origin, ≥3PN, N-cell origin (n=99), 0PN (no visible pronuclei), and lysis; 2.1PN (two pronuclei plus a micropronucleus; n=6) was tabulated separately. Blastulation and utilization were analysed by multivariable logistic regression with woman-clustered robust standard errors adjusted for maternal age and insemination method; adjusted odds ratios (aORs) with 95% confidence intervals (CIs) were reported. Clinical pregnancy was restricted to completed single-embryo transfers (SETs). Published 1PN blastulation (14.9%) and biparental-diploidy (71%) rates informed a deterministic recovery projection. ***Results***: Standard 2PN accounted for 61.7% of oocytes; disappearing/delayed 2PN 7.7%, 1PN-origin 4.2%, ≥3PN 2.8%, and N-cell origin 0.5%. Including disappearing/delayed zygotes within the conventional normal category raised the apparent normal-fertilization proportion to 69.4%; 57.7% of cycles contained at least one atypical phenotype. Disappearing/delayed 2PN showed lower blastulation than standard 2PN (32.9% vs 59.3%; aOR 0.31, 95% CI 0.26–0.36; P<.001) and lower utilization (24.1% vs 41.9%; aOR 0.44, 95% CI 0.38–0.51; P<.001). Among completed SETs, clinical pregnancy was 27.6% (16/58) versus 29.6% (249/840), respectively (aOR 0.98, 95% CI 0.53–1.78; P=.93). Under selective management, 28 1PN-origin embryos were banked; routine extended culture projected approximately 114 1PN blastocysts, including approximately 81 biparental-diploid blastocysts. ***Conclusion***: Static fertilization assessment conceals clinically relevant heterogeneity. Disappearing/delayed 2PN should remain a prognostic annotation rather than be merged with standard 2PN. Guideline-aligned extended culture of selected 1PN zygotes may expand the candidate blastocyst pool; projected biparental diploidy requires genetic confirmation and prospective live-birth validation.
Disclosure of interest: *None declared.*

FERTILITY PRESERVATION

FERTILITY PRESERVATION IN A PUBLIC TERTIARY HOSPITAL: A FIVE-YEAR OBSERVATIONAL STUDY OF 106 WOMEN REFERRED AND 95 OVARIAN STIMULATION CYCLES

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Fertility preservation (FP) is now offered in public health systems to a population that extends well beyond oncology. However, publications on FP within the public healthcare system remain scarce, studys available are without stratifying to the indication for FP or patient characteristics. Then we describe a whole public tertiary FP programme. Retrospective observational study that includes every woman referred for FP to the Reproductive Medicine Unit of a public tertiary hospital between September 2021 and May 2026. Terminology follows the ICMART/ESHRE International Glossary and maturation rate the Vienna consensus KPI. Unit of analysis was fixed a priori: baseline characteristics per patient using the first cycle, cycle outcomes per cycle, cumulative oocyte yield per patient. A started cycle was one with gonadotrophins administered or retrieval performed; cancellation was a started cycle not reaching retrieval or retrieving no oocytes. Data are median [IQR] and n/N (%) with the denominator stated. 106 women were referred to our hospital for fertility preservation; 83 (78.3%) started at least one cycle, generating 95 stimulation cycles (72 one cycle, 10 two, one three). The 23 who never started did so mainly by their own decision or loss to follow-up. Indications were endometriosis 33 patients/38 cycles, oncological 22/27, benign non-endometriosis 21/23, transgender men 4/4 and pathogenic-variant carriers 3/3. Median age was 30 [25-34] years, BMI 22.6 [20.1-25.6] kg/m2, AMH 2.2 [1.2-3.4] ng/mL and antral follicle count 13 [8-20]; 24/83 (28.9%) had previous ovarian surgery. Stimulation lasted 9 [8-10] days with 2025 [1485-2700] IU of gonadotropins; 62/73 (85%) were antagonist cycles and 76/87 (87%) received agonist trigger. Per cycle, 8.5 [5-13] oocytes were retrieved and 6 [4-10.5] MII vitrified, maturation rate 0.80 [0.70-1.00]. Cumulative yield was 7 [4-12] MII per patient. Cancellation occurred in 7/95 cycles (7.4%) and ovarian hyperstimulation syndrome in 2/95 (2.1%), both in transgender men and both requiring admission. One in five referred women never started a cycle, this finding may be overlooked when the data are analysed only on a cycle reporting. The only severe complications clustered in one small subgroup. Reporting patients and cycles separately is essential for these figures to be comparable.

VAGINAL NATURAL PROGESTERONE FOR PROGESTIN-PRIMED OVARIAN STIMULATION IN OOCYTE DONORS: A RETROSPECTIVE PROOF-OF-CONCEPT STUDY

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Problem statement: Progestin-primed ovarian stimulation (PPOS) is increasingly used to prevent premature luteinizing hormone surges when fresh embryo transfer is not required. Most evidence involves synthetic progestins, particularly medroxyprogesterone acetate (MPA), whereas evidence on vaginal natural progesterone remains scarce. We evaluated the feasibility of vaginal natural progesterone (Cyclogest® 400 mg/day) for PPOS in oocyte donors, focusing on ovarian response, oocyte maturity and the relationship between progesterone exposure and oocyte outcomes. ***Methods***: This retrospective descriptive case series included 30 oocyte donors undergoing controlled ovarian stimulation with vaginal natural progesterone 400 mg/day for pituitary suppression. Demographic and ovarian-reserve characteristics, follicles ≥13 mm at trigger, trigger-day serum progesterone, cumulus-oocyte complexes (COC), metaphase-II (MII) oocytes and MII maturation rate were evaluated. Analyses were descriptive and exploratory. Associations between trigger-day progesterone and COC, MII yield and maturation rate were assessed using Pearson correlation and univariate linear regression. ***Results***: Mean age was 28.0±4.2 years, BMI 24.1±2.4 kg/m² and antral follicle count 18.5±4.6. Mean trigger-day progesterone was 10.8±5.9 ng/mL (n=28). Mean COC and MII yields were 14.5±6.8 and 11.6±5.6, respectively, with an MII maturation rate of 80.8±11.8% (95%CI 76.3–85.3). Trigger-day progesterone showed no association with COC yield (r=-0.001; p=0.997), MII yield (r=0.038; p=0.848), or MII maturation rate (r=0.132; p=0.511). The observed maturation rate was consistent with the approximately 79% reported with MPA in a large randomized oocyte-donation trial. ***Conclusion***: Vaginal natural progesterone 400 mg/day appears feasible for PPOS in oocyte donors, providing satisfactory oocyte yield and maturation despite substantial systemic progesterone exposure. Higher trigger-day progesterone concentrations were not associated with impaired oocyte outcomes. These proof-of-concept findings support vaginal natural progesterone as a potential additional PPOS option and warrant prospective controlled evaluation.
Disclosure of interest: *None declared.*

OOCYTE VITRIFICATION FOR FERTILITY PRESERVATION IN BENIGN NON-ENDOMETRIOSIC GYNECOLOGICAL PATHOLOGY

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Problem statement: Benign non-endometriotic gynecological pathologies, and the ovarian surgeries they often require, frequently compromise female fertility. Despite being a recognized indication for fertility preservation, these patients are usually grouped into poorly characterized miscellaneous cohorts in major published series. This study aims to describe the baseline clinical characteristics, controlled ovarian stimulation response, and cumulative vitrification outcomes of patients with benign non-endometriotic gynecological conditions in a public tertiary university hospital. ***Methods***: We conducted a retrospective, hospital-based observational study following STROBE guidelines, consecutively analyzing all patients managed between September 2021 and May 2026. Baseline characteristics were analyzed per patient using first-cycle data. Ovarian stimulation outcomes were evaluated per cycle, and cumulative yields were calculated per patient. All parameters followed ICMART/ESHRE guidelines. Quantitative variables are expressed as median [interquartile range, IQR]. ***Results***: Twenty-one patients underwent 23 stimulation cycles. The cohort had a young median age of 27.0 [23.0–30.0] years, 100% nulliparity, AMH of 1.60 [1.00–2.18] ng/mL, and an antral follicle count of 9.0 [6.0–15.0]. Crucially, 57.1% (12/21) of patients had undergone prior ovarian surgery. Per cycle, stimulation duration was 9.0 [8.0–10.0] days with a total gonadotropin dose of 1470.0 [937.5–2025.0] IU, and trigger-day estradiol of 1707.0 [1038.0–2015.0] pg/mL.
Cycle yields resulted in 5.0 [4.0–10.5] retrieved, 4.0 [2.5–9.5] mature MII, and 4.0 [3.0–9.8] vitrified oocytes, with a median follicle-to-oocyte index (FOI) of 0.67 [0.37–0.96]. Cycle cancellation rate was 8.7% (2/23); no ovarian hyperstimulation syndrome occurred. Because patients completed a median of one cycle, the cumulative vitrified oocyte yield per patient was 5.0 [3.0–10.0]. ***Conclusion***: While young, patients with benign non-endometriotic conditions exhibit compromised ovarian reserves and modest oocyte yields, heavily influenced by prior surgeries (57.1%). To maximize cumulative yields, clinical pathways should recommend oocyte accumulation via consecutive cyclesand, crucially, prioritize fertility preservation referral prior to surgical interventions.

ENDOMETRIOSIS VERSUS OTHER BENIGN GYNECOLOGICAL PATHOLOGIES IN FERTILITY PRESERVATION

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Problem statement: Endometriosis is associated with reduced ovarian response during fertility preservation. However, it remains unclear whether this reflects endometriosis itself or previous ovarian surgery, a confounder of ovarian reserve. We aimed to compare oocyte yield between women with endometriosis and those with other benign conditions undergoing fertility preservation, adjusting for age and previous ovarian surgery. ***Methods***: We conducted a retrospective observational study of patients undergoing fertility preservation at a tertiary hospital between September2021 and May2026. The primary analysis included the first stimulation cycle per patient. Oocyte and metaphaseII(MII) oocyte numbers were compared between women with endometriosis and non-endometriotic benign pathology. Negative binomial regression was used for MII counts, with endometriosis as the exposure and age and previous ovarian surgery as prespecified covariates. Incidence rate ratios (IRRs) with 95% confidence intervals (CIs) were estimated. A sensitivity analysis including all cycles used generalized estimating equations (GEE) accounting for within-patient correlation. ***Results***: Fifty-four patients were included: 33 with endometriosis and 21 with non-endometriotic benign pathology. Women with endometriosis were older (median 32.0 vs. 27.0 years; p=0.042) and received a higher gonadotropin dose (2475 vs. 1470 IU; p<0.001). Despite this, median retrieved oocytes (7 vs. 5; p=0.182), MII oocytes (6 vs. 4; p=0.133), and vitrified oocytes (6 vs. 4; p=0.291) did not differ significantly. In the adjusted model, endometriosis was not associated with lower MII yield (IRR 1.24, 95% CI 0.66–2.35; p=0.507). Previous ovarian surgery showed a consistent association with lower MII yield (IRR 0.55, 95% CI 0.30–1.00; p=0.052). The sensitivity analysis showed results for endometriosis (IRR 1.29, 95% CI 0.89–1.88; p=0.173), while previous ovarian surgery remained significantly associated with reduced yield (IRR 0.59, 95% CI 0.43–0.80; p<0.001). ***Conclusion***: In this cohort, endometriosis was not associated with lower MII yield after adjustment for age and previous ovarian surgery. In contrast, previous ovarian surgery was consistently associated with reduced oocyte yield. Fertility preservation counselling should consider surgical history as a key determinant of ovarian response rather than attributing reduced yield to endometriosis alone. Given the small sample size and wide confidence intervals, larger prospective studies are needed to determine whether clinically relevant differences exist.

FERTILITY PRESERVATION IN ENDOMETRIOSIS: EXPERIENCE AND OUTCOMES AT A PUBLIC TERTIARY REFERRAL CENTER

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Problem statement: Endometriosis may compromise ovarian reserve and oocyte quality through inflammation, oxidative stress, fibrosis, and mass effect. Surgery may further contribute to impaired ovarian function, particularly in patients with recurrent disease or repeated procedures. The aim of this study was to evaluate ovarian response to stimulation and oocyte vitrification outcomes in patients with endometriosis referred to a reproductive medicine unit at a tertiary hospital. ***Methods***: We conducted a retrospective, descriptive, observational study between September 2021 and May 2026 in a fertility preservation unit at a tertiary hospital. Thirty-three patients with endometriosis meeting the following criteria were included: <36 years, bilateral endometriomas, unilateral endometrioma >4–5 cm, postsurgical recurrence or rapid growth, AMH >1 ng/mL or antral follicle count (AFC) >5–7, BMI <30 kg/m², and no previous children. ***Results***: A total of 38 ovarian stimulation cycles were performed. Median age was 32 [26–34] years, BMI 22.6 [19.7–24.8] kg/m², AMH 2.4 [1.2–3.6] ng/mL, and AFC 10 [7–15]. Previous ovarian surgery had been performed in 33.3% of patients (30% cystectomy; 70% unilateral adnexectomy). A short GnRH antagonist protocol was used in 82% of cycles, and 62% received prior oral contraceptives. Stimulation lasted 9 [8–11] days, with a total gonadotropin dose of 2475 [1913–2763] IU. A GnRH agonist was used for final oocyte maturation in 80% of cycles. A median of 7 [5–12] oocytes were retrieved per cycle, of which 6 [4–9.8] were mature (MII), with a maturation rate of 80%. Six oocytes were vitrified per cycle. Three cycles (7.9%) were cancelled, and no cases of ovarian hyperstimulation syndrome were recorded. ***Conclusion:*** Fertility preservation should be considered in patients with endometriosis given their risk of declining ovarian function. In our cohort, 6 oocytes were vitrified per cycle, fewer than observed in other fertility preservation indications in our unit. This difference may be related to previous ovarian surgery (33.3%) and the potential impact of endometriosis on oocyte quality. Larger studies are needed to confirm these findings.

FERTILITY PRESERVATION IN FEMALE ONCOLOGY PATIENTS: EXPERIENCE FROM A TERTIARY PUBLIC HOSPITAL

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Problem statement: Fertility preservation in female oncology patients is an intervention that should be performed without compromising the initiation of gonadotoxic treatment. Oocyte vitrification is an established strategy. Real-world clinical data from tertiary public fertility preservation units remain limited. The aim of this study was to describe the feasibility, outcomes, and safety of a fertility preservation program over a five-year period. ***Methods***: A descriptive, observational, retrospective study was conducted between September 2021 and May 2026 at a tertiary public hospital. Oncology patients eligible for fertility preservation were included. Variables were analyzed per patient or per cycle, as appropriate. No hypothesis testing was performed due to the descriptive nature of the study. ***Results***: A total of 22 patients and 27 cycles were included. The median age was 31.5 [26.2–36.8] years; BMI, 22.2; AMH, 1.94; and antral follicle count, 19.0 [11.5–28.2]. Breast cancer was the most frequent diagnosis, followed by Hodgkin lymphoma. Overall, 65.4% of patients were scheduled to receive or had already received chemotherapy or radiotherapy. Ovarian stimulation lasted 9.0 [8.0–10.0] days, with a total gonadotropin dose of 2,025 [1,746–2,287.5] IU. GnRH analogues were used for triggering in 96% of cycles, with letrozole added in patients with breast cancer. Antagonists were used in 95% of cycles, and random-start protocols in 40%. A median of 10.0 [7.5–14.0] oocytes were retrieved per cycle, of which 8.0 [5.5–11.5] were mature (MII), corresponding to a maturation rate of 81%. The median number of vitrified oocytes was 8.0. Ovarian response was assessed using the maturation rate, ovarian sensitivity index, and follicle-to-oocyte index. Two cycles (7.4%) were cancelled. No cases of ovarian hyperstimulation syndrome or hospital admissions were recorded. ***Conclusion***: Oocyte vitrification can be implemented effectively and safely in a moderately active tertiary public fertility preservation unit, achieving oocyte retrieval and maturation outcomes within the range reported in reference cohorts and without serious adverse events. The limited use of random-start protocols represents an opportunity for improvement to minimize delays in the initiation of cancer treatment. Prospective studies are needed to evaluate referral and treatment initiation times, oncological characteristics, and long-term reproductive outcomes.

MALE AND FEMALE FERTILITY PRESERVATION (INCLUDING MEDICAL INDICATIONS, ELECTIVE GAMETE CRYOPRESERVATION, AND LABORATORY TECHNIQUES)

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Problem statement: Elective (social) oocyte cryopreservation is increasingly used for fertility preservation. An optimal ovarian stimulation protocol should effectively prevent premature luteinizing hormone surges while remaining safe, convenient, and cost-effective. Evidence for progestin-primed ovarian stimulation (PPOS) in elective oocyte cryopreservation is still limited. This study evaluated the clinical and economic outcomes of dydrogesterone-based PPOS compared with a GnRH antagonist protocol. ***Methods***: This retrospective single-center cohort study included 201 women undergoing elective oocyte cryopreservation between 2023 and 2025. Patients received either dydrogesterone-based PPOS (n=123) or a GnRH antagonist protocol (n=78). Baseline characteristics, including age, BMI, AMH, and AFC, were comparable between groups. Primary outcomes were the number of oocytes retrieved and the metaphase II (MII) oocyte rate. Secondary outcomes included gonadotropin consumption, stimulation duration, monitoring visits, patient satisfaction (TSQM-9), and safety. ***Results***: The mean number of oocytes retrieved was similar between the PPOS and GnRH antagonist groups (15.3±6.4 vs. 14.9±6.1; p=0.58), as was the MII oocyte rate (78.4% vs. 77.1%). Cycle cancellation rates were below 3% in both groups. Women treated with PPOS required fewer monitoring visits (median 3 vs. 4; p<0.01) and reported higher treatment satisfaction (TSQM-9: 78±9 vs. 72±10; p=0.02). No cases of ovarian hyperstimulation syndrome or serious adverse events were observed. The reduced number of monitoring visits suggests potential cost savings and improved resource utilization. ***Conclusion***: Dydrogesterone-based PPOS provides clinical outcomes comparable to GnRH antagonist protocols while reducing monitoring requirements and improving patient satisfaction. These findings support PPOS as a patient-friendly and potentially more cost-efficient first-line ovarian stimulation strategy for elective oocyte cryopreservation.

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REPRODUCTIVE OUTCOMES OF WOMEN WITH SECONDARY INFERTILITY FOLLOWING ENDOSCOPIC MANAGEMENT OF ISTHMOCELE: A SYSTEMATIC REVIEW

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Background: Isthmocele, also known as caesarean scar defect or uterine niche, is a long-term complication of caesarean delivery. It may be associated with abnormal uterine bleeding, pelvic pain and secondary infertility. Endoscopic operations are aimed at improving drainage from the defect or reconstructing uterine anatomy which may resolve symptoms, however, effect on fertility remains uncertain. ***Aim***: To examine reproductive outcomes after hysteroscopic or laparoscopic management of isthmocele in women with secondary infertility and a desire for future pregnancy. ***Methods***: Databases were searched from inception to April 2026 for studies that assessed hysteroscopic or laparoscopic treatment and reported reproductive outcomes for patients categorized as infertile. Relevant data were extracted systematically, and the risk of bias was assessed using appropriate tools depending on study design. Due to clinical and methodological heterogeneity, results were synthesized narratively. ***Results***: Thirteen primary studies were identified as eligible, including one randomized controlled trial, two non-randomized comparative studies and ten uncontrolled observational studies. Six studies evaluated hysteroscopic treatment, five predominantly laparoscopic treatment and two mixed approaches Reproductive outcomes after endoscopic treatment were generally favorable after surgery, and several studies also described anatomical or symptomatic improvement. Statistical pooling was inappropriate because populations, surgical selection, outcomes and follow-up differed substantially. Most studies were small and uncontrolled, and safety outcomes were incompletely reported. ***Conclusion***: Endoscopic management may improve the reproductive potential of selected women with symptomatic isthmocele or secondary infertility, however, current evidence does not establish that surgery independently improves pregnancy or live-birth rates. Treatment should be individualized according to symptoms, fertility assessment and niche anatomy. The certainty of this conclusion is limited as most studies were small and observational. Larger multicenter randomized trials, focused on live birth reported, are still required to reach a concrete conclusion.

FERTILITY PRESERVATION BEYOND OOCYTE VITRIFICATION: FERTILITY-SPARING SURGERY IN OVARIAN CLEAR CELL CARCINOMA

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Fertility preservation in young patients with epithelial ovarian cancer extends beyond gamete cryopreservation and may require preservation of the uterus and unaffected ovary. Current ESGO–ESHRE–ESGE guidelines consider ovarian preservation an oncologically acceptable option in selected patients with stage IA or IC1 ovarian clear cell carcinoma. We report a successful multidisciplinary fertility-sparing approach followed by assisted reproduction in a patient with early-stage ovarian clear cell carcinoma. A 35-year-old woman with primary infertility was referred with a 10-cm left ovarian endometrioma, which subsequently increased to 20 cm with highly suspicious imaging features, associated deep endometriosis, and contralateral endometriomas. Laparotomy and left salpingo-oophorectomy were performed, with intraoperative capsular rupture. Histopathology revealed ovarian clear cell carcinoma. Complete surgical staging included pelvic and para-aortic lymphadenectomy, omentectomy, and peritoneal cytology. After comprehensive counselling, the patient requested fertility preservation; the uterus and right ovary were retained.
Complete staging showed no extraovarian disease, consistent with International Federation of Gynecology and Obstetrics (FIGO) stage IC1. Following multidisciplinary assessment, close surveillance was chosen and definitive surgery was deferred until completion of reproductive plans. Postoperative anti-Müllerian hormone (AMH) was 0.4 ng/mL. The patient underwent in vitro fertilization (IVF), yielding seven metaphase II oocytes. Two blastocysts were obtained; one was transferred and the second was vitrified. The transfer resulted in an ongoing pregnancy and subsequent delivery of a healthy term newborn. Fertility preservation in selected patients with early-stage ovarian clear cell carcinoma may involve not only cryopreservation but also carefully planned fertility-sparing oncologic surgery. This case illustrates how multidisciplinary selection, complete staging, reproductive counselling, and timely IVF can achieve both oncologic management and successful live birth in a patient with stage IC1 disease.

EMBRYO TRANSFER STRATEGIES AND THE RISK OF MULTIPLE PREGNANCY IN ASSISTED REPRODUCTION

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Problem statement: Multiple pregnancy is a major complication of assisted reproductive technology (ART), with increased maternal and neonatal morbidity. Single embryo transfer (SET) is the main strategy to reduce this risk. We assessed the association between number of embryos transferred, multiple pregnancy, and clinical pregnancy rates. ***Methods***: Retrospective observational study including all embryo transfers performed from January 2021 to December 2025. Transfers were classified as SET or ≥2 embryos and analyzed by cycle type, embryo stage, maternal age, and embryo quality. Clinical pregnancy was defined as ≥1 gestational sac and multiple pregnancy as ≥2 sacs. Comparisons used χ^2 tests and odds ratios (OR) with 95% confidence intervals (CI). Multivariable logistic regression adjusted for age, embryo quality, embryo stage, cycle type, year, and clustering by patient. ***Results***: Among 3,015 embryo transfers, 862 clinical pregnancies occurred, including 73 multiple pregnancies. Overall clinical pregnancy rate per transfer was 28.6%, versus 26.7% with SET, with no significant crude difference. Multiple pregnancy per transfer occurred in 0.4% of SET versus 5.3% of transfers of ≥2 embryos ($p<0.001$); among clinical pregnancies, rates were 1.7% and 17.0%, respectively ($p<0.001$). After adjustment, SET was not significantly associated with lower clinical pregnancy in fresh cycles (OR 0.78, 95% CI 0.60–1.02; $p=0.069$), but was associated with lower odds in frozen cycles (OR 0.61, 95% CI 0.45–0.81; $p<0.001$). SET was independently associated with lower multiple pregnancy odds in fresh (OR 0.046, 95% CI 0.011–0.195; $p<0.001$) and frozen cycles (OR 0.080, 95% CI 0.025–0.252; $p<0.001$), without significant interaction. Each 10% absolute annual increase in blastocyst-stage transfer was associated with 9% lower odds of multiple pregnancy (OR 0.91, 95% CI 0.84–1.00; $p=0.049$). ***Conclusion***: SET was strongly associated with lower multiple pregnancy risk. Its association with clinical pregnancy differed by cycle type, with no significant reduction in fresh cycles but lower odds in frozen cycles. These findings support SET as an effective strategy to minimize iatrogenic multiple pregnancy while highlighting the importance of appropriate patient and embryo selection.
Disclosure of interest: *None declared.*

TELOMERIC AND EPIGENETIC ALTERATIONS INDUCED BY SPERM CRYOPRESERVATION IN MALE CANCER PATIENTS: IMPLICATIONS FOR FERTILITY PRESERVATION

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Problem statement: The increasing incidence of cancer among younger males has amplified the importance of fertility preservation. Survival rates for hematological malignancies such as HL, NHL and CML now exceed 90%. Chemotherapy often lead to irreversible damage to the spermatogenic population. Sperm cryopreservation prior to treatment has become standard practice; however, concerns remain regarding the long-term genetic and epigenetic integrity due to ROS of post-thaw sperms. Recent studies point to telomere dynamics and epigenetic changes as crucial markers of chromatin and genomic stability. This study aimed to evaluate the epigenetic and telomeric stability of cryopreserved sperm from cancer patients pre-chemotherapy. ***Methods***: Semen samples were obtained from 25 male cancer patients and 25 age-matched

fertile controls. Semen analysis was performed before and after cryopreservation. Telomeric dynamics were assessed using RT-qPCR to measure telomere length and TERRA expression. Global epigenetic modification was assessed by 5-hydroxymethylcytosine (5-hmC) ELISA. ATRX protein expression was evaluated by immunofluorescence confocal microscopy. DNA fragmentation and chromatin decondensation was assessed by DFI Kit (Halo sperm, HT-HSG2R, Spain) and NCDT kit (hTS-NCDT kit, India). ***Results***: Post-cryopreservation sperm from cancer patients showed a significant increase in TERRA expression ($p<0.05$), reduced ATRX localization compared with fertile controls indicating enhanced oxidative stress-driven epigenetic remodelling. This TERRA dysregulation was associated with reduced telomere length and instability—markers of impaired chromatin integrity. Increased DNA fragmentation and decreased chromatin decondensation potential was observed in cancer patients. ***Conclusion***: Our findings highlight the epigenetic fragility and telomeric dysregulation in post-cryopreserved sperm samples, challenging the conventional assumption of gamete stability post-thaw. The interplay between oxidative stress, TERRA imbalance, and telomere shortening reveals a new dimension in onco-fertility that requires not just the preservation of sperm but the preservation of their genetic and epigenetic integrity. Incorporating TERRA, Telomere Length, DFI, NCDT as functional biomarkers could enhance the evaluation of sperm quality in fertility preservation programs.

INFERTILITY/ENDOCRINOLOGY

KNOWLEDGE AND PRACTICES ON POLYCYSTIC OVARY SYNDROME (PCOS) AMONG OBSTETRICIAN-GYNECOLOGIST (OB-GYN) IN REGION II, PHILIPPINES: CROSS-SECTIONAL STUDY FROM JANUARY TO FEBRUARY 2026

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Problem statement: In the Philippines, little local information exists on how healthcare providers diagnose and manage PCOS. Determining the gap is essential for policy recommendations, to improve clinical guidelines, and to develop effective training programs. ***Methods***: This study was an analytical cross-sectional study using a validated questionnaire. It assessed the level of knowledge on clinical diagnosis and management as well as practices of obstetrician-gynecologists on polycystic ovary syndrome (PCOS) Region II. All OB-GYNs who are members of POGS North Eastern Luzon Chapter practicing in these provinces were included in this online survey. ***Results***: Among 63 respondents, overall PCOS knowledge was high (mean score 22.6 ± 2.6/25), with 98.4% (62/63) achieving a knowledge score ≥60%; the lowest correct-response items were the first step in evaluating suspected PCOS with irregular menses and hirsutism (66.7%) and the follicle threshold for PCOS morphology per updated recommendations (68.3%). The Rotterdam criteria were the most commonly used diagnostic framework (88.9%), followed by NIH (9.5%) and AE-PCOS (1.6%), with no significant differences in diagnostic-criteria use by age, sex, years in practice, or duration of PCOS-care involvement (all $p > 0.05$). For non-fertility-related management, lifestyle modifications were most frequently prescribed (65.1%), followed by oral contraceptives (28.6%), while for fertility-related management, clomiphene citrate + metformin was most common (42.9%) followed by ovulation inductors (22.2%). ***Conclusion***: Overall, respondents demonstrated strong knowledge of PCOS diagnosis and management. In clinical practice, the Rotterdam criteria predominated, and the choice of diagnostic criteria did not appear to vary meaningfully across respondent profiles.
Management patterns emphasized lifestyle-based interventions for non-fertility concerns, commonly used pharmacologic/ovulation-induction strategies for fertility goals, and a clinical burden driven largely by menstrual complaints alongside prominent long-term concerns related to metabolic and endometrial risks.

THE IMPACT OF CLIMATE CHANGE ON REPRODUCTIVE HEALTH AND AN EXAMINATION OF THE PERSPECTIVES, EXPERIENCES, AND COPING FACTORS OF WOMEN WITH INFERTILITY: A PHENOMENOLOGICAL STUDY

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Problem statement: This study was conducted to examine the effects of climate change on reproductive health based on the experiences and perceptions of women with infertility. ***Methods***: This qualitative study employed an interpretive phenomenological design and was conducted in the infertility unit of a private hospital between May 2025 and February 2026. The study included 20 women with infertility who voluntarily agreed to participate. ***Results***: Content analysis revealed six main themes: the emotional and psychosocial burden of the infertility process; perceptions of climate and environmental changes; the effects of climate change on the infertility experience; economic difficulties and access to healthcare; coping strategies; and expectations of the healthcare system. Participants primarily assessed climate change in terms of seasonal irregularities, extreme weather events, air pollution, and changes in food quality. They also noted that environmental changes could negatively affect hormonal balance, fertility, and daily behaviors. ***Conclusion***: The study concluded that climate change affects women with infertility not only biologically but also psychologically, socially, and economically. Accordingly, it is considered important to address the relationship between climate change and reproductive health through a holistic approach to develop care services and health policies for women with infertility.
Keywords: Climate Change, Infertility, Women, Reproductive Health, Coping

IMPLICATIONS OF THE NEW TERMINOLOGY FOR POLYENDOCRINE METABOLIC SYNDROME ON INFERTILITY CARE

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Problem statement: Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting approximately 12% of women of reproductive age. In accordance with the current international consensus, the term Polyendocrine Metabolic Ovarian Syndrome (PMOS) has been proposed because “PCOS” does not adequately reflect the multisystemic pathophysiology of the condition. A phased transition to the new terminology is planned over three years. In PMOS, endocrine, metabolic, and inflammatory disturbances contribute to the development of infertility, highlighting the need to reconsider current approaches to infertility care. ***Methods***: This review aimed to examine the clinical definition of PMOS in the context of infertility and evaluate its implications for the care of infertile women with PMOS. A literature search was conducted in Web of Science (WoS), PubMed, and Google Scholar using the keywords “polyendocrine metabolic ovarian syndrome,” “polycystic ovary syndrome,” “infertility,” “infertility care,” “midwifery care,” and “nursing care,” including various combinations of these terms. ***Results***: Current literature indicates that the transition from PCOS to PMOS necessitates a broader approach to infertility assessment that integrates reproductive, endocrine, metabolic, and inflammatory mechanisms. Infertility care for women with PMOS should extend beyond the assessment of ovulatory function to include insulin resistance, obesity, and cardiometabolic risks. Accordingly, healthy nutrition, regular physical activity, and appropriate weight management should be incorporated into individualized care. Evidence also emphasizes the importance of preconception care, particularly for the early identification of potential risks, optimization of pre-pregnancy health, and improvement of fertility outcomes. These findings suggest that the new terminology supports a more comprehensive and multidimensional framework for infertility care. ***Conclusion***: The transition from PCOS to PMOS represents more than a terminological revision; it reflects an expansion in the conceptual and clinical scope of infertility care. Personalized care integrating reproductive, endocrine, and metabolic assessments is therefore essential. Considering the multisystemic nature of PMOS, midwives and nurses have an important role in providing holistic care by identifying women’s reproductive, endocrine, and metabolic needs and supporting health-promoting behaviors throughout the infertility and preconception periods.

Keywords: Polyendocrine metabolic ovarian syndrome; polycystic ovary syndrome; infertility; infertility care; midwifery care; nursing care

BEYOND LOW AMH: CLINICAL AND OVARIAN RESERVE FEATURES ASSOCIATED WITH ELEVATED FSH IN WOMEN PRESENTING FOR FERTILITY EVALUATION

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Problem statement: Low anti-Müllerian hormone (AMH) indicates reduced ovarian reserve, but the degree of ovarian dysfunction varies considerably among women with similarly low AMH. Menstrual characteristics and follicle-stimulating hormone (FSH) may provide additional information regarding more advanced ovarian insufficiency. This study evaluated clinical and ovarian reserve characteristics associated with elevated FSH among women with low AMH. ***Methods***: This retrospective observational study was conducted at a tertiary fertility centre. Medical records of 108 women aged 28-39 years presenting for fertility evaluation were reviewed from 1/01/2025 to 31/12/2025. All women had AMH <1.2 ng/mL. Data included age, menstrual history, family history of early menopause/premature ovarian insufficiency (POI), previous ovarian surgery, endometriosis and smoking exposure. Ovarian reserve was assessed using serum AMH, Day-2/3 FSH and antral follicle count (AFC). Scanty and irregular menstrual cycles were combined as an abnormal menstrual-pattern category. Women were stratified according to FSH <25 IU/L or ≥25 IU/L, consistent with the 2024 ESHRE/ASRM/CREWHiRL/IMS POI guideline threshold. ***Results***: Among 108 women with AMH <1.2 ng/mL, 35 (32.4%) had FSH ≥25 IU/L, while 73 (67.6%) had FSH <25 IU/L. Abnormal menstrual patterns were present in 51 women (47.2%). Previous ovarian surgery, endometriosis and smoking exposure were documented in 18.5%, 16.7% and 9.3%, respectively. Women with FSH ≥25 IU/L had markedly lower AMH (0.078±0.096 vs 0.509±0.340 ng/mL; p<0.001) and AFC (0.74±1.24 vs 2.05±1.71; p<0.001) than women with FSH <25 IU/L. Mean age did not differ between groups (36.44±3.32 vs 36.36±2.63 years; p=0.905). Abnormal menstrual patterns were present in 32/35 (91.4%) women with FSH ≥25 IU/L compared with 19/73 (26.0%) with FSH <25 IU/L (p<0.001). ***Conclusion***: Assessment of menstrual pattern and FSH, alongside AMH and AFC, may improve identification of women with low AMH who require closer evaluation for not only timely reproductive counselling but high risk or confirmed premature ovarian insufficiency [POI] . However comprehensive care must extend beyond reproductive outcomes — proactively addressing the cardiovascular, skeletal, and psychological consequences of premature estrogen loss.

CHARACTERISTICS OF ADAPTIVE REACTIONS OF THE AUTONOMIC NERVOUS SYSTEM IN WOMEN WITH INFERTILITY

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Problem statement: The neuroendocrine regulation of the female reproductive system is closely associated with the autonomic nervous system (ANS), particularly the balance between sympathetic and parasympathetic activity. Disturbances in autonomic regulation may contribute to hormonal imbalance and infertility. Therefore, assessment of autonomic status in infertile women is important for understanding adaptive mechanisms and improving treatment strategies. ***Methods***: A total of 300 women completed a specialized questionnaire to evaluate autonomic regulation. Functional activity of the ANS was assessed by cardiointervalography (CIG) in 70 women with infertility lasting from 1.5 to 8 years. Among them, 57% had inflammatory diseases of the reproductive organs, while 42.9% had endocrine disorders. The control group included 20 somatically healthy women. Levels of FSH, LH, prolactin, and testosterone were measured in all participants. Mathematical analysis of cardiac rhythm was performed to assess autonomic balance and adaptive capacity. ***Results***: Balanced autonomic regulation (eutonia) was observed in 75% of healthy women, compared with only 25.7% of infertile patients. Hyper-sympathicotonia was identified in 38.5% of infertile women, while sympathicotonia was detected in 30%. Vagotonia was observed in only 5.7% of patients. Gonadotropic hormone levels remained within normal ranges; however, elevated testosterone levels were found in 35.7% of women, and menstrual cycle disturbances were noted in 14.3%. Healthy women demonstrated normal cardiac rhythm patterns, harmonious interaction between sympathetic and parasympathetic divisions of the ANS, and efficient autonomic regulation without excessive centralization of control mechanisms. ***Conclusion***: Infertility is associated with disturbances in autonomic nervous system regulation, including altered baseline autonomic tone and vegetative reactivity. Since female reproductive function largely depends on ANS mechanisms, evaluation of autonomic status should be considered during planning of therapeutic and rehabilitation measures for women with impaired fertility.

MATERNAL AGE AND OUTCOMES OF IN VITRO FERTILIZATION AND INTRACYTOPLASMIC SPERM INJECTION: A RETROSPECTIVE ANALYSIS FROM 2010 TO 2025

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Problem statement: Delayed childbearing has become increasingly common in developed countries, and maternal age remains a major prognostic factor for ovarian response and reproductive outcomes after assisted reproduction. This study aimed to assess changes in in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI) outcomes from 2010 to 2025 across three age groups (<35, 35–39, and ≥40 years) and to evaluate temporal trends. ***Methods***: We conducted a retrospective descriptive study of IVF/ICSI cycles performed between January 2010 and December 2025. Outcomes included cycle cancellation, oocyte retrieval, embryo transfer (ET), and clinical pregnancy. Cancellation rate and clinical pregnancy rates per initiated cycle, oocyte retrieval, and ET were calculated. Overall comparisons were performed using the chi-square test, pairwise comparisons using odds ratios (ORs) with 95% confidence intervals (CIs), and temporal trends using linear regression. ***Results***: A total of 9,132 IVF/ICSI cycles were analyzed. Clinical pregnancy rates per ET were 37.37% in women <35 years, 32.48% in women aged 35–39 years, and 23.61% in women ≥40 years (p<0.001). Women <35 years had higher odds of clinical pregnancy per ET than women ≥40 years (OR 1.93, 95% CI 1.61–2.32; p<0.001), as did women aged 35–39 years (OR 1.56, 95% CI 1.30–1.87; p<0.001). Clinical pregnancy rates per initiated cycle were 22.33%, 19.58%, and 13.51%, respectively (p<0.001). Cancellation rates were 8.53%, 11.46%, and 11.92%, respectively. Women ≥40 years had higher odds of cancellation than women <35 years (OR 1.45, 95% CI 1.19–1.77; p<0.001), but not versus women aged 35–39 years (OR 1.05, 95% CI 0.87–1.26; p=0.67). The proportion of cycles performed in women ≥40 years increased significantly over time (p<0.001), whereas their clinical pregnancy rate per ET showed no significant linear trend. ***Conclusion***: Increasing maternal age was associated with lower clinical pregnancy rates and a higher probability of cycle cancellation. Despite a marked rise in IVF/ICSI use among women ≥40 years, reproductive outcomes in this group remained stable over the study period.
Disclosure of interest: *None declared.*

REPRODUCTIVE OUTCOMES AFTER IVF IN WOMEN AGED 40 YEARS OR OLDER: A RETROSPECTIVE ANALYSIS FROM 2023 TO 2025

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Problem statement: The use of in vitro fertilization (IVF) among women aged ≥40 years is increasing, but reproductive success remains limited by reduced oocyte competence and a high risk of pregnancy loss. We evaluated IVF outcomes in women ≥40 years, focusing on clinical pregnancy per embryo transfer (ET), outcomes after fresh and frozen ET, and factors associated with pregnancy. ***Methods***: We conducted a retrospective observational study of all IVF cycles performed in women ≥40 years between January 2023 and June 2025. Cycles involving preimplantation genetic testing were excluded. Baseline characteristics, pre-retrieval cancellation, ovarian response, and reproductive outcomes after fresh and frozen ET were analyzed. The primary outcome was clinical pregnancy per ET. Chi-square testing and logistic regression were used to assess associations between clinical pregnancy and age, anti-Müllerian

hormone (AMH), and transfer type. ***Results***: A total of 213 cycles were included. The pre-retrieval cancellation rate was 11.3%, and mean AMH was 2.25±1.73 ng/mL. Among cycles reaching oocyte retrieval, the mean numbers of retrieved and metaphase II oocytes were 9.08 and 7.20, respectively. Overall, 215 ETs were performed: 127 fresh and 88 frozen. Clinical pregnancy rates per ET were 26.8% after fresh transfer and 22.7% after frozen transfer (p=0.61), with an overall rate of 25.1%. Live birth rates per ET were 11.0% and 6.8%, respectively, with an overall rate of 9.3%. Miscarriage occurred in 63.0% of clinical pregnancies. Clinical pregnancy rates did not differ significantly between women aged 40 and ≥41 years (p=0.72). In multivariable analysis, age (p=0.73), AMH (p=0.64), and transfer type (p=0.25) were not independently associated with clinical pregnancy. The live birth rate per initiated cycle was 9.4%. ***Conclusion***: Among women aged ≥40 years undergoing IVF without preimplantation genetic testing, approximately one in four ETs resulted in clinical pregnancy, whereas fewer than one in ten resulted in live birth. The high miscarriage rate was the main factor limiting reproductive success and should be emphasized during age-specific reproductive counseling.
Disclosure of interest: *None declared.*

STOP GNRH AGONIST/ANTAGONIST PROTOCOL IN IVF/ICSI: EXPERIENCE AND REPRODUCTIVE OUTCOMES IN CLINICAL PRACTICE

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Problem statement: Gonadotropin-releasing hormone (GnRH) antagonist protocols are widely used for ovarian stimulation in in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI), whereas GnRH agonist protocols remain useful in selected patients. The stop agonist/antagonist (STOP) protocol combines luteal-phase pituitary suppression with a GnRH agonist, discontinued at the start of ovarian stimulation, followed by flexible GnRH antagonist administration. We introduced this protocol in 2024 and aimed to describe its outcomes compared with conventional stimulation protocols. ***Methods***: Retrospective observational study including IVF/ICSI cycles performed between January 2024 and December 2025 using a long agonist (LA), antagonist (ANT), or STOP protocol. Between-group comparisons were performed according to variable type. Statistical significance was set at p<0.05. ***Results***: A total of 1,027 cycles from 852 patients were analyzed: 236 LA, 693 ANT, and 98 STOP. Mean age was 37.1, 35.5, and 36.5 years, respectively. Mean anti-Müllerian hormone (AMH) levels were 1.92, 3.998, and 1.705 ng/mL, with significantly lower AMH in STOP than ANT (p<0.0001). Pre-oocyte retrieval cancellation rates were 15.7% for LA, 8.8% for ANT, and 6.1% for STOP (p=0.004). Mean numbers of oocytes retrieved were 8.7, 11.3, and 8.6; metaphase II oocytes 6.8, 8.8, and 6.5; embryos 4.4, 5.2, and 4.1; and blastocysts 1.3, 2.1, and 1.3, respectively. There were 118 embryo transfers in LA, 258 in ANT, and 52 in STOP. Clinical pregnancy rates per transfer were 22.0%, 26.4%, and 26.9%, respectively, with no significant differences. Miscarriage and live birth rates per transfer were also comparable among groups. Analysis restricted to first treatment cycles showed similar findings. ***Conclusion***: In our cohort, the STOP protocol was associated with a lower pre-retrieval cancellation rate and reproductive outcomes comparable to conventional LA and ANT protocols. It may represent a useful stimulation option in selected IVF/ICSI patients.
Disclosure of interest: *None declared.*

ENDOCRINE PROFILING AND ACMG/AMP-GUIDED GENETIC VARIANT INTERPRETATION IN PCOS WITH ADENOMYOSIS AMONG WOMEN UNDERGOING IVF/ICSI

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Problem statement: Polycystic ovary syndrome (PCOS) frequently coexists with adenomyosis, but the endocrine and genetic features distinguishing this phenotype remain poorly defined. We evaluated clinical-endocrine factors associated with adenomyosis in women with PCOS undergoing in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI) and explored candidate genetic variants using American College of Medical Genetics and Genomics/Association for Molecular Pathology (ACMG/AMP) criteria. ***Methods***: A retrospective IVF/ICSI cohort included 568 women with PCOS (PCOS-only, n=455; PCOS+adenomyosis, n=113). Tubal-factor infertility controls (n=110) were included for comparison. Baseline clinical and endocrine variables were analysed using clustered logistic regression with generalized estimating equations and robust standard errors. Peripheral-blood deoxyribonucleic acid (DNA) underwent targeted candidate-variant screening involving FANCM, RTEL1, WFS1, PRDM16, SOX9, KIF7, RPGRIP1L, DLL3, MXRA8, C1QTNF12 and NADK. Variants were annotated and interpreted according to ACMG/AMP criteria. A novel FANCM coding variant was compared between PCOS phenotypes and sequenced controls using Fisher's exact test. Given the retrospective study design, interpretation is limited by reliance on routinely collected clinical data and incomplete availability of selected covariates. ***Results***: Within the PCOS cohort, both baseline estradiol (E2) ($p=9.3\times10^{-10}$) and higher body mass index (BMI) (p<0.01) were significantly associated with adenomyosis comorbidity. Anti-Müllerian hormone (AMH) levels were lower in PCOS+adenomyosis than in PCOS-only (p<0.01) but remained higher than controls, suggesting an intermediate endocrine phenotype. Dysmenorrhoea and/or heavy menstrual bleeding occurred in 95/113 women with PCOS+adenomyosis. Candidate variants were identified across genes involved in genome stability, metabolic regulation and developmental signalling. A novel FANCM variant (NC_000014.9:g.45167038C>G; Genome Reference Consortium Human Build 38 [GRCh38]) was detected in 5/56 sequenced PCOS cases (8.9%) and 0/47 sequenced controls (two-sided Fisher's exact p≈0.061). This hypothesis-generating finding requires independent replication and population-frequency confirmation. ***Conclusion***: PCOS with adenomyosis demonstrates a distinct endocrine profile, particularly involving baseline E2, BMI and AMH. Integrating endocrine phenotyping with ACMG/AMP-guided variant interpretation may help identify biologically relevant subgroups; however, the genetic findings remain exploratory and require validation.
Disclosure of interest: *The authors declare that they have no financial, commercial, professional or personal relationships that could be perceived as influencing the conduct, interpretation or reporting of this study.*

EMPIRICAL STUDY OF OVARIAN RESPONSE AND LIVE BIRTH RATES IN REPRODUCTIVE OUTCOMES OF WOMEN WITH POLYCYSTIC OVARY SYNDROME UNDERGOING IVF

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Problem statement: Polycystic ovarian syndrome (PCOS) is the most common endocrine condition among women of reproductive age, and accounts for a considerable proportion of infertility consultations worldwidely. Polycystic Ovarian Syndrome (PCOS) is a condition characterized by hyperandrogenism, ovulatory abnormalities and polycystic ovarian structure, affecting around 6-13% of females and often necessitating assisted reproductive procedures. Women with PCOS have a larger ovarian reserve, higher anti-Müllerian hormone levels and greater response to gonadotrophin stimulation. These qualities may also enhance the number of oocytes produced but there is still some concern over the viability of the embryos, the success of implantation and rate of live birth. Furthermore, obesity is usually associated with PCOS and has a negative effect on reproductive efficiency. ***Methods***: The aim of this review is to examine women diagnosed with PCOS according to Rotterdam criteria who underwent IVF or ICSI. Controls were women of similar age undergoing ART for different causes of infertility. Baseline demography, hormonal and clinical data, ovarian stimulation parameters, fertilization rates, blastocyst development, implantation rates, clinical pregnancy rates and cumulative live birth rates were evaluated. ***Results***: In the published literature, women

diagnosed with PCOS had significantly increased numbers of retrieved oocytes and embryos compared with non-PCOS women. Cumulative live birth rates in a study of women 35 years and older were 55.5% in PCOS women compared with 38.0% in age-matched women ($p<0.001$), suggesting better ovarian reserve and higher embryo batching. However, the risk of ovarian hyperstimulation syndrome remains to be a major clinical issue. Obese women with PCOS frequently have worse results when compared to normal weight women with the same stimulation protocols. In a recent meta-analysis of 7,680 women with PCOS, women with PCOS and a normal BMI had significantly higher live birth rates compared to women with an elevated BMI (OR 1.88, 95% CI 1.56-2.27). ***Conclusion***: Because of their larger ovarian reserve and greater number of available embryos, women with PCOS tend to have good reproductive results after IVF. Obesity is an important factor of effectiveness. Personalized stimulation protocols and weight control techniques may improve outcomes and reduce treatment-related problems.

Disclosure: *No conflict of interest.*

EFFECTS OF GLP-1 RECEPTOR AGONISTS AND GIP ON FOLLICULAR DEVELOPMENT AND OVERALL REPRODUCTIVE HEALTH IN INSULIN RESISTANT FEMALE MOUSE AND RAT MODELS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Problem statement: Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and glucagon-dependent insulinotropic polypeptide (GIP) based therapies are distinct classes of agents that have recently gained widespread use in the management of type 2 diabetes and obesity. Dietary patterns including fast food together with sedentary lifestyles have contributed to a high prevalence of diabetes among women of reproductive age. Insulin resistance and consequent hyperinsulinemia are key factors in polycystic ovary syndrome (PCOS) pathogenesis, the most prevalent endocrine disorder in women of reproductive age with detrimental effects on ovarian reserve and function affecting fertility. Human studies are challenged by uncontrolled variables, including diet, exercise, medication use, environmental exposures, and genetic variability, as well as ethical constraints associated with repeated ovarian biopsies. Animal experiments therefore provide an important opportunity to investigate these effects under controlled conditions. To date, no systematic review or meta-analysis has comprehensively evaluated the effects of GLP-1 RAs and GIP-based therapies on ovarian follicles. Therefore, this systematic review and meta-analysis aimed to investigate the effects of GLP-1 RAs and GIP-based therapies on ovarian follicular development in rats and mice with insulin resistance. ***Methods***: A comprehensive search was performed using PubMed, Embase and Web of Science (SciELO) from inception to 21 July 2026, without restrictions on publication date or language (PROSPERO number CRD420261450769). Eligible studies were randomized and nonrandomized studies using non-pregnant rats and mice models of insulin resistance that investigate the effects of injectable anti-obesity drugs targeting GLP-1 and GIP including a control group (vehicle/placebo, no treatment or metformin). Two reviewers independently screened titles and abstracts to determine eligibility and are currently extracting data and assessing study quality using the SYRCLE risk of bias tool and CAMARADES checklist. ***Results***: The search strategy identified 2,102 studies. After removal of duplicates, 1,883 unique records were screened, of which 1,818 were excluded based on title and abstract. Consequently, 65 full-text articles were assessed for eligibility and 35 studies were ultimately included in this review. ***Conclusion***: Data extraction and quantitative synthesis are currently underway and the complete findings of this study will be presented at the congress.

COMPLETE HYDATIDIFORM MOLE AFTER TRANSFER OF PGT-A–REPORTED EUPLOID BLASTOCYSTS GENERATED BY ICSI: A CASE REPORT

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Problem statement: Complete hydatidiform mole (CHM) is typically associated with an androgenetic diploid conceptus and may rarely occur after assisted reproductive technology. Preimplantation genetic testing for aneuploidy (PGT-A) primarily assesses chromosome copy number and may not establish parental genomic origin. We report a rare case of CHM following transfer of two blastocysts reported as euploid by PGT-A after intracytoplasmic sperm injection (ICSI). ***Methods***: A 39-year-old woman with 1.2 years of infertility and a previous missed abortion after intrauterine insemination underwent IVF with ICSI. Thirteen oocytes were retrieved, nine were fertilized, and five day-6 blastocysts underwent trophectoderm biopsy. Whole-genome amplification was performed using the SurePlex DNA Amplification System, followed by PGT-A using the VeriSeq PGS Kit (Illumina, San Diego, CA, USA). Two blastocysts were reported as euploid and three as aneuploid. In a modified natural frozen embryo transfer cycle, the two euploid blastocysts, graded 5BC and 3BC, were transferred. ***Results***: Serum β-hCG was 25.8 mIU/mL at 4+0 weeks of gestation and showed a progressive rise. At 6+2 weeks, serum β-hCG was 8,821 mIU/mL, while transvaginal ultrasonography demonstrated multiple intrauterine cystic lesions without normal embryonic development. Serum β-hCG continued to rise, reaching 48,519 mIU/mL at 8+1 weeks. Given the persistently rising β-hCG level and abnormal ultrasonographic findings, dilation and evacuation was performed at 8+5 weeks. Histopathologic examination demonstrated diffuse atypical trophoblastic proliferation with focal mild hydropic change, consistent with complete hydatidiform mole. Immunohistochemical staining showed loss of p57 expression, further supporting the diagnosis. Following evacuation, serum β-hCG progressively declined to 0.26 mIU/mL within approximately eight weeks. ***Conclusion***: Complete hydatidiform mole is extremely rare after transfer of PGT-A–reported euploid embryos but can still occur, even following ICSI. Although ICSI minimizes the possibility of dispermic fertilization, it does not eliminate other mechanisms leading to androgenetic diploidy. Moreover, euploidy on copy-number-based PGT-A does not necessarily establish biparental genomic origin. Clinicians should therefore remain alert to atypical β-hCG kinetics and abnormal ultrasonographic findings even after transfer of PGT-A–reported euploid embryos.

OBSTRUCTIVE PYELONEPHRITIS SECONDARY TO OVARIAN HYPERSTIMULATION FOLLOWING OOCYTE RETRIEVAL: A RARE COMPLICATION OF IVF

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Problem statement: Ovarian hyperstimulation syndrome (OHSS) is a recognized complication of controlled ovarian stimulation during in vitro fertilization (IVF). Ovarian enlargement may occasionally cause compression of adjacent pelvic structures; however, ureteric obstruction complicated by acute pyelonephritis is exceptionally rare. We report an unusual case of obstructive pyelonephritis associated with ovarian enlargement following ovarian stimulation and oocyte retrieval. ***Methods***: A 39-year-old woman, gravida 2 para 0 aborta 2, with polycystic ovary syndrome (PCOS) and no previous surgical history underwent controlled ovarian stimulation with follitropin alfa, followed by choriogonadotropin alfa triggering and transvaginal oocyte retrieval. Two days after oocyte retrieval, she presented with severe right-sided lumbar pain radiating to the thigh, nausea and vomiting, without urinary symptoms. Clinical, laboratory and radiological investigations were performed. ***Results***: The patient was febrile (38.7°C) with marked right costovertebral angle tenderness. Laboratory investigations demonstrated

leukocytosis (17 K/μL) and elevated C-reactive protein (168 mg/L). Computed tomography demonstrated right hydroureteronephrosis consistent with obstructive pyelonephritis associated with bilateral ovarian cystic enlargement. Pelvic ultrasonography showed an enlarged right ovary measuring approximately 7.5 cm. Intravenous ceftriaxone was initiated. Cystoscopy with right double-J ureteral stent placement was performed, revealing purulent drainage at the level of obstruction. The patient improved following urinary decompression and antimicrobial therapy and was discharged on oral antibiotics to complete 14 days of treatment. ***Conclusion***: Mechanical ureteric compression secondary to ovarian enlargement should be considered as a rare but potentially serious complication following ovarian stimulation. In patients presenting with fever and flank pain after oocyte retrieval, early imaging is warranted. Prompt diagnosis, urinary decompression and antimicrobial treatment are essential to prevent renal and systemic complications.

Disclosure of interest: *None declared.*

DEFECT OF MTHFR IN A PATIENT WITH TEN HABITUAL MISSCARRIAGES

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Methylenetetrahydrofolate reductase (MTHFR) is essential enzyme for homocysteine metabolism. 5,10-MTHFR gene is placed at the end of the short arm of the chromosome 1 (1p 36.3).Plasma level of homocysteine rises due to decreased enzyme activity, and in association with low level of folic acid, increases the risk for neural tube defect, loss of fetus, placenta abruption, and placental infarctions. This is a case of a patient age 47 came to our Clinic because of bleeding in the 23rd week of gestation. This was a twin pregnancy the result of artificial insemination IVF-ICI/ET, who had a defect on the gene for MTHFR, in homozygous TT form. Before this pregnancy, this patient had ten spontaneous miscarriages, eight of which following IVF-ICI/ET, and two following spontaneous conception, all in the 8th week of pregnancy. She was given a treatment which included: cardiolipin, folic acid and was advised to take Fraxiparine 0.4ml s.c. until one day before delivery. She delivered in 39 week. She was a healthy patient, who did not suffer from any chronic or systemic condition, and no cause of infertility was found. This represents a useful treatment for the patients with MTHFR defect, as it prevents miscarriage and promotes successful pregnancy.

IVF OTHER

THE PSYCHOLOGICAL IMPACT OF IN VITRO FERTILIZATION (IVF): A GENDER SYSTEMATIC REVIEW

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Background/Objective: In Vitro Fertilization (IVF) has revolutionized reproductive medicine, offering hope to individuals and couples facing infertility. However, the psychological impact of IVF varies significantly based on gender, necessitating a systematic review of the existing literature. This review explores the emotional effects of IVF on both men and women, highlighting gender-specific psychological responses throughout the treatment process. ***Methods***: A systematic literature search using various databases (such as PubMed) was made. Studies published in English from the years 2000 to 2023 were included in the review. ***Results***: A total of 47 studies examined the psychological impact of IVF on both women and men, covering the IVF programming period, the initial stages of IVF treatment, and subsequent stages, as well as the long-term psychological distress effects of IVF in both genders. Both female and male infertile patients are dealing with anxiety, depression and low quality of life. However, women were found to experience higher levels of psychological distress, including increased anxiety and depression symptoms, compared to men at nearly all stages of IVF treatment. ***Conclusions***: Understanding these gender specific differences is crucial for developing targeted psychological support interventions to improve mental well-being during IVF treatments.

MAPPING THE LANDSCAPE OF ARTIFICIAL INTELLIGENCE IN INFERTILITY TREATMENT: A BIBLIOMETRIC ANALYSIS (2011–2025)

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Problem statement: Artificial intelligence (AI) applications in infertility treatment, spanning embryo grading, morphokinetic analysis, and endometrial receptivity prediction, have grown rapidly and become increasingly interdisciplinary and methodologically heterogeneous. This growth has produced a body of literature difficult to synthesize using traditional narrative review methods. A comprehensive bibliometric mapping spanning the full range of AI applications in infertility treatment has been lacking. This study aimed to map the intellectual structure, publication and citation trends, global research landscape, and emerging thematic clusters of AI research in infertility treatment. ***Methods***: Bibliographic records were retrieved from the Web of Science Core Collection using a three-tier Boolean search strategy combining terms related to AI, assisted reproductive technology (ART), and treatment outcomes. Analysis was restricted to English-language original research articles published between 2011 and 2025. VOSviewer (version 1.6.20) was used to characterize publication and citation trends, international collaboration networks, and keyword co-occurrence clusters. ***Results***: Among 926 included articles, annual publications rose from 1 (2011) to 198 (2025), an approximate 46% compound annual growth rate (CAGR); cumulative citations grew even faster, at 65% CAGR, exceeding 5,300 by 2025. China led in publication volume (300 publications; 5,199 citations), while the United States led in total citations (6,310) and international collaborative connectivity (link strength 881). Denmark, Greece, and Australia achieved the highest citation-per-publication ratios (41.9, 39.9, and 39.8) despite comparatively low publication volumes. "Machine learning" (254 occurrences), "deep learning" (141), and "artificial intelligence" (112) were the leading methodological keywords; "implantation" showed the highest clinical connectivity (link strength 714). Five thematic clusters were identified: foundational AI and computational precision medicine (39.5% of keywords), AI-driven embryo selection and morphokinetics (25.0%), endometrial receptivity/biomarkers and implantation failure (19.0%), clinical prediction models for implantation outcomes (14.5%), and early-stage oocyte competence and morphological scoring (2.0%). ***Conclusion***: AI research in infertility treatment has expanded rapidly over the past decade, driven primarily by China and the United States, with thematic activity heavily concentrated on embryo selection, morphokinetics, and implantation-outcome prediction. Oocyte-level assessment remains a comparatively nascent field, representing a priority area for future research.

DEPRESSIVE SYMPTOMS AND PREGNANCY LOSS WITHOUT LIVE BIRTH AMONG KOREAN WOMEN: A CROSS-SECTIONAL ANALYSIS OF THE KOREA NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (KNHANES)

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Problem statement: Infertility and pregnancy loss involve complex bidirectional interactions with mental health, yet population-based Korean data examining depressive symptoms in relation to pregnancy outcomes remain limited. This study evaluated the association between depressive symptom score (PHQ-9) and pregnancy without live birth among married Korean women of reproductive age, adjusting for sleep, stress, physical activity, and diet. ***Methods***: Data were derived from the Korea National Health and Nutrition Examination Survey (KNHANES), a nationally representative complex-sample cross-sectional survey. All available cycles administering the Patient Health Questionnaire-9 (PHQ-9) were pooled (2014, 2016, 2018, 2020, 2022, 2024); combined weights equalled annual total weight divided by six. Married, non-pregnant women aged 30–44 years with gravidity ≥1 were included (pre-specified primary analysis), comparing those without versus with a live birth; a broader secondary analysis additionally included nulligravid women. Multivariable complex-sample logistic regression (Taylor linearisation) generated adjusted odds ratios (aOR) for PHQ-9 score, adjusting for sleep duration, perceived stress, aerobic physical activity, energy intake, age, and

survey year. ***Results***: Among 2,850 women with gravidity ≥1, 70 (2.5%) had a pregnancy without live birth. Higher PHQ-9 score was significantly associated with pregnancy without live birth (adjusted odds ratio [aOR] 1.08, 95% confidence interval [CI] 1.03–1.14, p=0.002), independent of age (aOR 0.91, 95% CI 0.85–0.98, p=0.012). In the broader secondary analysis including nulligravid women (n=3,044), the same positive direction was observed but did not reach significance (aOR 1.02, 95% CI 0.98–1.06, p=0.278). Sleep, stress, physical activity, and energy intake were not significantly associated with either outcome definition. ***Conclusion***: Higher PHQ-9 depressive symptom scores were significantly associated with pregnancy without live birth, independent of age. Given the cross-sectional design, this association cannot establish causal direction: depressive symptoms may contribute to adverse pregnancy outcomes, or, conversely, the distress of pregnancy loss may elevate PHQ-9 scores. Longitudinal studies with validated infertility and pregnancy-loss diagnoses are needed to clarify this relationship.
Disclosure of interest: *None declared.*

BODY MASS INDEX AFFECTS OOCYTE RETRIEVAL, EMBRYO QUALITY AND LIVE BIRTH OUTCOME IN IVF/ICSI: A REVIEW OF THE LITERATURE

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Problem statement: Obesity is an increasing global health issue and one of the most important modifiable determinants of reproductive health. Over the past 20 years, obesity has become considerably more common in women of reproductive age, providing major obstacles for fertility services. Elevated body mass index (BMI) is related with hormonal disturbances, persistent low-grade inflammation, insulin resistance, impaired folliculogenesis, altered oocyte quality and decreased endometrial receptivity. ***Methods***: The aim of this review is to examine women who had IVF or intracytoplasmic sperm injection (ICSI). Patients were classified according to BMI defined by the World Health Organization. Demographic data, infertility diagnoses, anti-Müllerian hormone levels and ovarian reserve measurements were recorded. The evaluated outcomes included: gonadotropin dose requirements, stimulation duration, oocyte yield, fertilization rates, blastocyst development rates, implantation success rates, clinical pregnancy incidences, miscarriage rates and live birth numbers. ***Results***: It has been shown that overweight women need greater doses of gonadotropins and longer stimulation periods. Several studies have shown that obese women using assisted reproductive technology (ART) have poorer reproductive results, however the independent effect of BMI on ovarian response, embryo development and live birth rates remains controversial. Obesity has been shown in a meta-analysis to be associated with a 15% reduction in frequencies of live births after IVF as compared to women with a normal BMI (RR 0.85, 95% CI 0.82-0.87). A 5 kg/m2 increase in BMI is associated with a 7% decrease in live birth rate and a 9% increase in miscarriage rate. Obese women have fewer mature oocytes, lower clinical pregnancy rates and higher risk of miscarriage compared to those with a normal BMI. Clinical pregnancy rates are significantly lower in patients with BMI > 30 kg/m2. Reproductive outcomes seem to be pretty similar within the normal BMI range. ***Conclusion***: Higher BMI has a negative impact on many aspects of assisted reproduction such as ovarian response, embryo development and finally the chance of having a live birth. Weight control should be incorporated into preconception care before reproductive therapy, and individualized counseling may improve outcomes for obese women receiving ART.
Disclosure: *No conflict of interest.*

TECHNOLOGICAL INNOVATIONS

ARTIFICIAL INTELLIGENCE IN EMBRYO SELECTION AND REPRODUCTIVE OUTCOMES: DOES TECHNOLOGY IMPROVE CLINICAL DECISION MAKING?

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Problem statement: Embryo selection is an important and controversial issue in the current practice of IVF. Traditionally embryo assessment is based on morphological classification by skilled embryologists although it is subject to considerable inter-observer variability and subjective interpretation. Recent developments in artificial intelligence (AI) have allowed automated examination of embryo morphology and morphokinetic development through advanced machine-learning algorithms. These technologies try to increase the accuracy of embryo selection by finding minor developmental traits which are difficult for human judgment to spot. Despite increased commercial use, it is unclear if AI actually improves reproductive outcomes or just increases laboratory output. Currently, IVF has a success rate of about 30 percent per cycle of therapy, indicating a need for better embryo selection approaches. ***Methods***: The aim of this review is to compare women after single blastocyst transfer after IVF vs ICSI. The primary outcomes were implantation rate, clinical pregnancy rate, ongoing pregnancy rate and live birth rate. Other outcomes measured were patient age, embryo quality, and transfer type. ***Results***: Artificial intelligence (AI) methods showed consistent superiority over traditional embryologist assessments in predicting embryo viability and implantation probability in a comprehensive examination of 20 trials. In a multicenter evaluation, embryologists could successfully select the most likely embryo to implant based on morphology alone in 65.5% of cases, which climbed to 73.6% with the use of AI (p<0.001). AI has a tremendous potential to enhance embryo selection, with algorithms using deep learning reaching implantation prediction accuracies of above 75%. However, recent randomized trials have produced conflicting results about changes in clinical pregnancy rates, and further prospective validation is needed. ***Conclusion***: The current findings suggest that artificial intelligence can help improve the accuracy of embryo selection and reduce inter-observer variability, but for now, it should be regarded as an adjunct and not a substitute for the professional judgement of embryologists. Further multicenter research is needed to provide universal guidelines.
Disclosure: *No conflict of interest.*

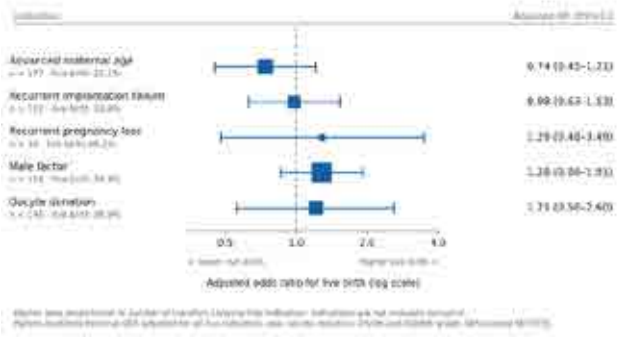
REPRODUCTIVE GENETICS

AFTER EUPLOID EMBRYO SELECTION, DOES THE CLINICAL INDICATION FOR PGT-A STILL MATTER FOR LIVE BIRTH? 695 SINGLE FROZEN EMBRYO TRANSFERS

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Problem statement: Advanced maternal age (AMA), recurrent implantation failure (RIF), and recurrent pregnancy loss (RPL) are common indications for preimplantation genetic testing for aneuploidy (PGT-A). Whether they remain independently associated with live birth once transfer is restricted to a euploid embryo is uncertain. This question bears directly on whether aneuploidy accounts for most implantation failure or if euploidy alone is enough for reproductive success. ***Methods***: This retrospective cohort included 695 single euploid frozen embryo transfers in 372 patients at one Mexican fertility center (2016–2024). Blastocysts underwent trophectoderm biopsy, vitrification, warming, and single transfer. Five non-mutually-exclusive PGT-A indications were evaluated: AMA, RIF, RPL, male factor, and oocyte donation. The primary endpoint was live birth. Adjusted odds ratios

(ORs) were estimated using patient-clustered binomial generalized estimating equations with robust standard errors, entering all five indicators simultaneously and adjusting for age, biopsy day (5, 6, or 7), and ASEBIR category. ***Results***: There were 177 transfers with AMA, 122 with RIF, 34 with RPL, 314 with male factor, and 146 involving oocyte donation; transfers could carry multiple indications. Live-birth rates were 31.1%, 33.6%, 38.2%, 34.4%, and 34.9%, respectively. None showed a statistically significant adjusted association with live birth: AMA, OR 0.74 (95% confidence interval [CI] 0.45–1.21); RIF, OR 0.98 (95% CI 0.63–1.53); RPL, OR 1.29 (95% CI 0.48–3.49); male factor, OR 1.28 (95% CI 0.86–1.91); and oocyte donation, OR 1.21 (95% CI 0.56–2.60). Ninety-one transfers carried none of the five indications and had a live-birth rate of 29.7%. ***Conclusion***: Among transfers restricted to a single euploid embryo, the clinical indications for PGT-A, including RIF, showed no statistically precise independent association with live birth. Clinically, these findings do not support using the original indication alone to direct management or automatically escalate testing and add-ons after a failed euploid transfer; reassessment should integrate embryo, uterine, endometrial, and transfer-related factors. The findings do not establish equivalence between groups: confidence intervals were wide, particularly for RPL with only 34 transfers, and data on endometrial preparation and uterine covariates were unavailable. Without an untested comparator, this study cannot determine whether PGT-A improves reproductive outcomes.



PGT-A ON THE NEW ILLUMINA MISEQ I100 PLATFORM: FEASIBILITY AND CROSS-PLATFORM CONCORDANCE AFTER BLASTOCYST REBIOPSY

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Problem statement: The recently introduced Illumina MiSeq i100 is a new benchtop NGS platform, but experience with its application to preimplantation genetic testing for aneuploidy (PGT-A) remains limited. PGT-A is based on analysis of a small trophectoderm sample, which may not fully represent the chromosomal constitution of the blastocyst, particularly in embryos with mosaic or segmental copy-number abnormalities (CNVs). We evaluated the feasibility of PGT-A using EmbryoMap on MiSeq i100 and assessed cross-platform agreement with previous Ion S5/S5 Prime results obtained from independent trophectoderm biopsies of the same blastocysts. ***Methods***: Twenty-three blastocysts previously classified as non-transferable based on abnormal PGT-A results using Ion ReproSeq PGS, Ion S5/S5 Prime sequencing, and Ion Reporter (Thermo Fisher Scientific) underwent independent trophectoderm rebiopsy. Rebiopsy samples were processed with EmbryoMap Sample Prep (Vitrolife), sequenced on new Illumina MiSeq i100, and analysed using eMap software (Vitrolife). Paired results were classified as concordant, partially concordant, or discordant. Partial concordance was defined as reproduction of the principal chromosome abnormality with differences in additional, whole-chromosome, mosaic, or segmental findings. ***Results***: All 23 rebiopsy samples generated interpretable PGT-A results on MiSeq i100. Exact concordance was observed in 17/23 blastocysts (73.9%), while the principal chromosome-level abnormality was reproduced in 21/23 (91.3%). Four cases (17.4%) were partially concordant and two (8.7%) discordant. All six non-exact pairs involved mosaicism and/or segmental CNVs. In contrast, unequivocal whole-chromosome abnormalities showed high reproducibility despite sampling from different trophectoderm regions and use of distinct sequencing and analytical workflows. ***Conclusions***: PGT-A using EmbryoMap on the new Illumina MiSeq i100 platform was technically feasible and yielded interpretable results. The principal chromosomal abnormality was reproduced in 91.3% of blastocysts, demonstrating strong agreement with previous Ion ReproSeq results despite independent sampling and different analytical workflows. Discordant and partially concordant findings were restricted to mosaic and/or segmental abnormalities, identifying these categories as the main source of residual variability. Such differences may reflect spatial embryonic heterogeneity and biopsy sampling as well as analytical thresholds, CNV resolution, and platform-specific classification. These findings support MiSeq i100 as a promising new platform for PGT-A and provide initial evidence supporting further laboratory and clinical validation.

FETOMATERNAL MEDICINE
FETAL MEDICINE

SINGLE FETAL DEATH IN TWIN PREGNANCY

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Objective: This case report aims to present the successful management of a twin pregnancy with one fetal death. ***Methods***: Our case involves a 32-year-old woman in her second pregnancy with dichorionic diamniotic twin pregnancy. The first ultrasound revealed two gestational sacs with different sizes, with the first sac having a diameter of 17.7mm (approximately 5W 6D) and the second sac having 7mm (approximately 4W 6D). After 5 weeks, the first embryo had a crown-rump length (CRL) of 32.6mm (10W 1D) and the second embryo had a CRL of 20.8mm (8W 5D)Figure 1,2. The next ultrasound at 7 weeks showed that the first fetus had a biparietal diameter (BPD) of 37mm (17W 3D) while the second fetus had a BPD of 26mm (14W 3D), indicating intrauterine growth restriction (IUGR). The smaller fetus was lost at 21 weeks of gestation. Amniocentesis of the remaining fetus was performed, with normal results. The pregnancy was closely monitored by obstetricians and transfusiologists in tertiary health institutions. ***Results***: The pregnancy ended at 37 weeks with a cesarean delivery resulting in a newborn weighing 2700 grams, with an Apgar score of 7/8. The second fetus was macerated, weighing approximately 120 grams. The mother was healthy. ***Conclusion***: Fetal loss occurs in approximately 6% of twin pregnancies, at any given day of the pregnancy. Intrauterine fetal growth alterations increase the risk of adverse perinatal and neonatal outcomes, as evidenced by our case of discordant growth in twins. Proper observation and management in corresponding medical centers and staff are crucial to ensure the survival of the remaining twin and a healthy mother.

SIRENOMELIA AT 21 WEEKS: PRENATAL SUSPICION AND POSTMORTEM CHARACTERIZATION OF A RARE LETHAL CONGENITAL MALFORMATION

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Problem statement: Sirenomelia, or mermaid syndrome, is a rare and usually lethal congenital malformation characterized by fusion of the lower extremities and severe anomalies of the caudal body. Prenatal recognition may be challenging, particularly when severe oligohydramnios limits ultrasonographic assessment. We present a case of sirenomelia diagnosed in the second trimester and subsequently characterized by fetal autopsy. ***Methods***: A 26-year-old nulliparous patient was referred at 21 weeks of gestation following ultrasonographic suspicion of fetal anomalies. First- and second-trimester screening had not been performed. Expert ultrasonography demonstrated severe oligohydramnios (amniotic fluid index 2 cm) and marked fetal ascites. Following multidisciplinary evaluation and approval for pregnancy termination, medically induced abortion was performed. The fetus and placenta

were submitted for comprehensive postmortem examination with histopathological analysis. ***Results***: A male fetus weighing 477.9 g showed fusion of the lower extremities into a single caudal structure terminating in one foot with two digits, consistent with sirenomelia. Autopsy demonstrated bilateral renal agenesis, absence of the external genitalia and anal opening, non-identification of the urinary bladder, bilateral intra-abdominal testes, and a complex caudal urorectal malformation consistent with abnormal cloacal septation. Histological examination confirmed bilateral renal agenesis. The umbilical cord was macroscopically described as containing two vessels. No major external craniofacial, upper-limb, cardiac, or central nervous system malformations were identified. Placental examination showed focal vacuolar changes of chorionic villi and focal fibrin deposition. ***Conclusion***: This case highlights the severe multisystem involvement of sirenomelia and the diagnostic limitations imposed by oligohydramnios. Postmortem examination was essential for confirming the diagnosis and defining the associated renal, anorectal, genital, and caudal urorectal abnormalities. Careful prenatal-postmortem correlation remains valuable for accurate phenotypic characterization and counseling in rare lethal fetal malformations.
Disclosure of interest: *None declared.*

FETAL MEDICINE

SEVERE FETAL NEUROLOGICAL INVOLVEMENT IN CONGENITAL CYTOMEGALOVIRUS INFECTION: A CASE REPORT

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Problem statement: Cytomegalovirus (CMV) is a DNA virus belonging to the Herpesviridae family and the leading non-genetic cause of sensorineural hearing loss and neurodevelopmental impairment. Congenital CMV is the most common congenital viral infection, affecting approximately 0.67% of newborns worldwide; 17–20% of affected infants develop immediate or long-term sequelae. Disease severity depends on gestational age at infection, with earlier infection associated with more severe outcomes. Universal versus targeted CMV screening remains controversial; however, screening may identify women without prior immunity and reinforce preventive measures during pregnancy. ***Methods***: Clinical case presentation and literature review regarding congenital CMV infection, prenatal diagnosis, and prognostic assessment. ***Results***: A 33-year-old G2P1 woman with no relevant medical history had no evidence of previous CMV exposure on first-trimester screening. The second-trimester morphology scan was unremarkable. At 28 weeks of gestation, because of suspected central nervous system abnormality, fetal magnetic resonance imaging (MRI) was performed and revealed multiple central nervous system abnormalities, including microcephaly, predominantly parietal polymicrogyria, synechiae involving the occipital horns, and cerebellar abnormalities. Maternal serology showed CMV IgG and IgM positivity with high avidity, consistent with a primary infection more than three months earlier, likely during the first trimester. Fetal CMV infection was suspected, and amniocentesis confirmed infection by PCR detection of CMV DNA in the amniotic fluid. Given the extremely poor neurological prognosis, with an expected outcome of severe intellectual developmental impairment, epilepsy, and complete dependence on others, the couple opted for termination of pregnancy for medical reasons. Histopathological examination was subsequently performed. The histopathological examination revealed microcephaly, and asymmetry of cerebellum and cerebral hemispheres. Immunohistochemical staining demonstrated positive CMV immunoreactivity in the renal tubular parenchyma and in Hofbauer cells. ***Conclusion***: Congenital CMV infection presents with a broad clinical spectrum, with neurological and/or auditory involvement being the most common. Infections occurring during the periconceptional period or first trimester, when CMV may disrupt neuronal precursor cell proliferation and differentiation, are associated with a higher risk of severe long-term sequelae, including neurodevelopmental impairment, epilepsy, and hypotonia. Accurate prenatal prognostic assessment is essential for appropriate parental counseling and informed discussion of termination of pregnancy for medical reasons.

PRENATAL DIAGNOSIS OF BECKWITH-WIEDEMANN SYNDROME ASSOCIATED WITH SEGMENTAL PATERNAL UNIPARENTAL DISOMY: A CASE REPORT

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Problem statement: The Beckwith-Wiedemann spectrum (BWS) is a rare genomic imprinting disorder of chromosome 11 characterized by ultrasound findings such as macrosomia, macroglossia, visceromegaly, kidney abnormalities and a predisposition to tumors. Prenatal diagnosis can be challenging due to the variable sonographic manifestations and their often late appearance during pregnancy. We report a case that was diagnosed prenatally based on the evolution of the ultrasound phenotype and targeted genetic testing. ***Methods***: We report the case of a 27-year-old primigravida with type 1 autoimmune hepatitis associated with primary sclerosing cholangitis, whose pregnancy was also complicated by immune thrombocytopenia (ITP) and intrahepatic cholestasis of pregnancy (ICP). Non-invasive prenatal screening test showed a normal female karyotype. However, the progressive development of fetal ultrasound abnormalities during ultrasound surveillance prompted further genetic prenatal testing by amniocentesis. ***Results***: Despite normal growth at 17 weeks and 5 days of gestation, the second-trimester ultrasound revealed an abdominal circumference at the 96th percentile, bilateral nephromegaly above the 99th percentile, bilateral renal hyperechogenicity with preserved corticomedullary differentiation and moderate polyhydramnios. Additional findings included a persistent left superior vena cava associated with cardiac asymmetry. At 27 weeks of gestation, the persistant macrosomia and nephromegaly, together with the development of macroglossia and the worsening of polyhydramnios, further strengthened the suspicion of BWS. A high-density Single Nucleotide Polymorphism (SNP) array performed on amniotic fluid obtained by amniocentesis identified a segmental paternal uniparental isodisomy involving the short arm of chromosome 11 (11p15.5-p12), ultimately confirming the diagnosis. The patient was hospitalized at 28 weeks and 2 days of gestation for threatened preterm labor in a complex maternal context. A female newborn weighing 1380 grams was delivered spontaneously at 29 weeks and 1 day of gestation. Informed consent was obtained from the patient for publication. ***Conclusion***: Prenatal diagnosis of BWS relies on the identification of ultrasound abnormalities, some of which may be progressive. The combination of excessive abdominal growth, nephromegaly, macroglossia and polyhydramnios should prompt targeted genetic testing of 11p15. Prenatal diagnosis enables anticipation and appropriate management of potential neonatal respiratory, metabolic and renal complications, while facilitating the implementation of postnatal tumor surveillance.

CONGENITAL EPULIS DIAGNOSED PRENATALLY AND MANAGED WITH THE EXIT PROCEDURE: A CASE REPORT

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Problem statement: Congenital epulis (congenital granular cell epulis) is a rare benign neonatal gingival tumor, with fewer than 250 cases reported worldwide. It typically presents as a solitary, pedunculated mass on the anterior maxillary alveolar ridge, with marked female predominance, and is rarely diagnosed prenatally. Although prognosis after excision is excellent, large lesions may compromise the fetal airway, occasionally requiring delivery under an Ex-Utero Intrapartum Treatment (EXIT) protocol to secure the airway while maintaining feto-placental circulation. We present a case of prenatally diagnosed congenital epulis managed with EXIT. ***Methods***: We describe a case report detailing clinical presentation, ultrasound and MRI findings, invasive prenatal testing, and multidisciplinary perinatal management. ***Results***: A 27-year-old tertigravida (prior forceps-assisted vaginal delivery; missed abortion at 9 weeks) presented at 32+2 weeks to the emergency room with decreased fetal movements; the nonstress test was reassuring. Ultrasound showed a female fetus of 2292 g (p97) with normal Doppler studies, and a well-delimited, isoechogenic 37×37 mm mass dependent on the upper lip. Prior first-trimester aneuploidy screening and the 22+3-week morphology scan had been

unremarkable. A detailed ultrasound at 33+5 weeks showed the tumor coming from the upper gum with a nutrient vessel, without polyhydramnios; amniotic fluid passed through both nostrils and fetal swallowing was preserved. Amniocentesis showed a normal female karyotype. The patient was referred to a specialized center. Fetal MRI confirmed a 39×34×30 mm exophytic tumor of the upper maxillary mucosa, compatible with congenital epulis, extending into the oral cavity. Permeable nostrils but no passing of amniotic fluid through oral cavity assessed during the test. Scheduled cesarean delivery under EXIT protocol was performed at 38+0 weeks. A female newborn weighing 3230 g was delivered, APGAR 5/6, umbilical artery pH 7.20. Epulis was easily excised with no further findings. ***Conclusions***: This case highlights the importance of thorough ultrasound assessment at every obstetric encounter, as unusual findings may arise between scheduled scans. Prenatal identification of large congenital epulis enables multidisciplinary planning and referral to a specialized center, where the EXIT procedure can secure the neonatal airway and optimize perinatal outcome.

ULTRA-LOW-DOSE CT IN THE DIAGNOSIS OF SKELETAL DYSPLASIAS

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34-year-old woman with no relevant medical history. TPAL 1001; 1 previous cesarean section. Normal first-trimester ultrasound. Second-trimester ultrasound at 21.3 weeks: mid-lumbar region, with deviation of the vertebrae without skin discontinuity or intracranial signs of an open neural tube defect. Amniocentesis at 22.4 weeks: no abnormalities detected (arr(XY)x1, (1-22)x2). Fetal MRI at 24.5 weeks: posterior angulation of the thoracolumbar vertebrae. Discontinuity and occupation of the spinal canal by a bony structure, with partial visualization of the spinal cord. Marked thinning of the spinal cord segment from T10 to T2–L1 was observed, with a slightly enlarged conus medullaris extending to L5–S1. Neurosonography at 32.5 weeks: change in spinal angulation at the lumbar level with protrusion, raising suspicion of a possible hemivertebra and a low-lying conus medullaris. Posterior angulation of the thoracolumbar vertebrae, suggesting an abnormality in lumbar vertebral segmentation. At the site of the angulation, a discontinuity and occupation of the spinal canal by an osseous structure were identified, with partial visualization of the spinal cord. Marked thinning of the spinal cord segment from T10 to T2–L1, with a mildly enlarged conus medullaris extending to L5–S1, suggesting possible diastematomyelia. Elective cesarean section due to premature rupture of membranes (PROM) at 36 weeks of gestation, resulting in the birth of a male newborn with appropriate birth weight and Apgar scores. On initial examination, rigidity and flexion of the lower limbs were observed, with inability to relax and extend them, as well as exaggerated reflexes. During the first ten days of life, brain MRI, CT, and ultrasound were performed, revealing findings that were semiologically compatible with segmental spinal dysgenesis. ***Conclusion***: Ultra-low-dose fetal CT is an essential tool for the diagnosis and management of fetal skeletal abnormalities in selected cases. In this case, it was crucial for differential diagnosis, prognostic assessment, and planning of obstetric and neonatal management.

BEYOND ISOLATED FETAL INTRA-ABDOMINAL UMBILICAL VEIN VARIX: IMPACT OF CUMULATIVE ULTRASOUND FINDINGS AND ADVERSE OBSTETRIC HISTORY ON SUSPECTING HIDDEN PATHOLOGY

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Problem statement: Fetal intra-abdominal umbilical vein varix (FIUVV) is a rare focal vascular dilation. Although isolated FIUVV generally has a favorable prognosis, the literature confirms that its association with additional structural or cardiac anomalies exponentially increases perinatal morbidity and mortality. Moreover, in pregnant women with an adverse obstetric background, the accumulation of minor or major ultrasound anomalies should increase clinical suspicion for complex, hidden underlying pathologies that might need perinatal care and attention. ***Methods***: We present a case of a 34-year-old multigravida with a high-risk obstetric history, including four prior cesarean sections, a twin pregnancy with spontaneous vanishing twin reduction, and a previous neonatal death of unknown etiology. She initiated obstetric follow-up during the second trimester. At 29 weeks of gestation, ultrasound identified an isolated FIUVV measuring 15 mm. By 31 weeks, the varix showed massive progression to 45x16 mm, accompanied by a newly detected ventricular septal defect (VSD). Invasive prenatal diagnosis via amniocentesis with array comparative genomic hybridization (array-CGH) showed normal results: (1-22)x2, (XY)x1. ***Results***: An emergency cesarean section was performed at 34+6 weeks due to symptomatic uterine contractions, delivering a male newborn weighing 2,804 g (p89) with Apgar scores of 9/10 and an umbilical artery pH of 7.28. Postnatal abdominal ultrasound confirmed a persistent umbilical varix (46x17 mm) extending into the extrahepatic portal system with distal thrombi. On day 5 of life, the neonate experienced sudden decompensated shock and severe abdominal distension. Plain abdominal X-ray demonstrated signs of intestinal volvulus, prompting urgent laparotomy and intestinal resection due to pan-intestinal ischemia. The newborn died in the immediate postoperative period. Autopsy was declined by the parents because of religious beliefs, but written consent was obtained for targeted exome sequencing focusing on genes implicated in FIUVV, VSD, and intestinal malrotation (with planned expansion to whole exome sequencing), currently pending results. ***Conclusions***: In agreement with current literature, the accumulation of multiple ultrasound anomalies significantly worsens perinatal prognosis. In high-risk obstetric contexts, even a single vascular anomaly like FIUVV should raise suspicion of an occult systemic or genetic condition, warranting rigorous multidisciplinary management.

MYELOSCHISIS WITHIN THE SPECTRUM OF OPEN SPINA BIFIDA: DIAGNOSIS, FETOSCOPIC MANAGEMENT AND A CLINICAL CASE

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Spina bifida is a spectrum of neural tube defects ranging from closed to open forms. Myeloschisis represents the most severe phenotype of open spina bifida: the fetal spinal defect appears exposed in utero as a flat neural plate without a covering meningeal sac, in contrast to myelomeningocele (MMC), where the placode is enclosed within a cystic sac. This distinction carries prognostic and surgical relevance, yet myeloschisis is often discussed only as a subtype of MMC rather than characterized independently. Open spina bifida overall has an estimated incidence of approximately 1 in 2900 live births. We have conducted a review of the prenatal diagnosis and fetoscopic management of myeloschisis and synthesized the results alongside an original case: a 22+3 week pregnant patient in whom second-trimester morphology ultrasound showed signs compatible with mieloschisis. Specifically, those included: cranial lemon sign, ventriculomegaly of 12 mm, and widening at L3 with a probable closure defect and abnormal spinal curvature, without an identifiable meningeal sac or nerve roots. After counselling on diagnosis and prognosis, the patient opted for fetoscopic repair, performed successfully. Prenatal ultrasound signs classically associated with open spina bifida (lemon sign, ventriculomegaly, and a discontinuous posterior spinal contour) allow diagnosis and differentiation between myeloschisis and MMC, guiding counselling and management. The landmark MOMS trial demonstrated that prenatal open repair of MMC improves neurological outcomes compared with postnatal repair, though at the cost of increased obstetrical complications. Fetoscopic approaches were subsequently developed to reduce maternal morbidity and preterm birth associated with hysterotomy, while fetal repair of both MMC and myeloschisis has been associated with improved neurologic outcomes compared with postnatal repair. Our case supports the feasibility of fetoscopic closure specifically for myeloschisis. Conclusion Myeloschisis, as the most severe open spina bifida phenotype, warrants distinct recognition in prenatal diagnostic and counselling pathways. Fetoscopic repair appears to

be a feasible and increasingly established option, reinforcing the value of individualized, shared decision-making in its management.

PROGRESSIVE FETAL VENTRICULOMEGALY WITH SUBEPENDYMAL CYSTS AND SUSPECTED NEURONAL MIGRATION DISORDER IN A CONSANGUINEOUS COUPLE

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Problem statement: Fetal ventriculomegaly is a heterogeneous finding that may be associated with chromosomal, infectious, monogenic or developmental disorders. We report a case of progressive ventriculomegaly associated with multiple subependymal cysts and abnormal cortical development in a highly consanguineous couple. ***Methods***: We present a fetus with mild bilateral ventriculomegaly detected at 20 weeks of gestation (10.5 mm) in our fetal medicine unit. Serial neurosonography, amniocentesis, maternal and amniotic fluid infection studies, and fetal magnetic resonance imaging (MRI) were performed. Genetic counselling and exome sequencing were done. ***Results***: Ventricular width increased to 11 mm at 22 weeks. Amniotic fluid quantitative fluorescent polymerase chain reaction (QF-PCR) and chromosomal microarray were normal. Maternal serology and amniotic fluid molecular testing for relevant congenital infections were negative. Neurosonography demonstrated bilateral mild ventriculomegaly and multiple bilateral thick-walled subependymal cysts with marked periventricular hyperechogenicity, raising suspicion of a neuronal migration disorder. Subsequentexaminations showed progression to severe bilateral ventriculomegaly and enlargement of the cystic lesions. Fetal MRI demonstrated bilateral cystic lesions with haemorrhagic remnants involving the ganglionic germinal matrix, predominantly on the left, with associated diffusion restriction. Small left frontal periventricular white matter cysts, delayed Sylvian fissure formation and asymmetric posterior sulcation were also observed, together with moderate left-sided ventriculomegaly. Exome sequencing was extended to genes associated with neuronal migration disorders. No pathogenic or likely pathogenic variant explaining the phenotype was identified; only a variant of uncertain significance in GOT2 was detected. ***Conclusion***: The combination of progressive ventriculomegaly, subependymal cysts, abnormalities of the germinal matrix and cortical sulcation should prompt investigation for an underlying brain developmental disorder. Detailed neurosonography and fetal MRI were complementary in defining the phenotype. In highly consanguineous couples, exome sequencing may be particularly valuable for detecting autosomal recessive disorders, although prenatal genomic testing may remain inconclusive. Disclosure of Interest: None.

RECURRENT NEONATAL DEATHS IN A CONSANGUINEOUS COUPLE: PRENATAL IDENTIFICATION OF FAMILIAL MOCS2 AND ACTA1 VARIANTS

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Problem statement: Consanguinity increases the risk of autosomal recessive disorders and may lead to recurrent neonatal deaths. We report a consanguineous couple with three previous neonatal deaths and the challenges of prenatal variant interpretation in these cases. ***Methods***: A woman with a history of adverse neonatal outcomes was referred for genetic counselling during her current pregnancy. Two previous infants had dysmorphic features, while the third had an apparently normal phenotype and died at six months, reportedly from a respiratory infection. Both parents were known carriers of at least three autosomal recessive conditions. First-trimester screening was followed by chorionic villus sampling CVS). Quantitative fluorescent polymerase chain reaction (QF-PCR), chromosomal microarray and targeted familial variant analysis were performed. ***Results***: First-trimester ultrasound was unremarkable. Screening showed intermediate risk for trisomy 21 and low risk for trisomies 18 and 13. CVS identified two familial variants in heterozygosis: c.45T>A, p.(Ser15Arg), in MOCS2, and c.541del, p.(Asp181ThrfsTer11), in ACTA1. QF-PCR for chromosomes 13, 18 and 21 and chromosomal microarray were normal. Targeted familial testing confirmed heterozygosity for both variants in the fetus. MOCS2-related molybdenum cofactor deficiency is an autosomal recessive disorder caused by biallelic pathogenic variants and may result in severe neurological disease and early death. In contrast, ACTA1 is associated with genetically heterogeneous congenital myopathies, including autosomal dominant disorders. ***Conclusion***: This case shows the complexity of prenatal genetic counselling in consanguineous families with recurrent adverse reproductive outcomes. Familial targeted testing enables rapid prenatal clarification, but interpretation must consider the specific gene, variant and mode of inheritance rather than assuming that heterozygosity implies an unaffected carrier state. The literature on MOCS2 and ACTA1 highlights the markedly different inheritance mechanisms and phenotypic consequences associated with these genes. Accurate interpretation is therefore essential when counselling families and assessing recurrence risk.

EARLY VS LATE FGR: TWO ENTITIES, TWO PROGNOSIS

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Problem statement: Fetal growth restriction (FGR) is a major cause of perinatal morbidity and mortality. Its classification into early-onset (diagnosis <32 weeks) and late-onset (≥32 weeks) reflects phenotypes with distinct pathophysiology and prognosis, with the early form typically associated with more severe placental dysfunction and a higher risk of perinatal loss. This study aimed to compare pregnancies complicated by early- versus late-onset FGR in terms of maternal characteristics, Doppler findings, and maternal-fetal outcomes, including perinatal loss. ***Methods***: Retrospective observational study including 74 pregnancies (5 twin gestations) diagnosed with FGR between January 2021 and August 2026, classified as early-onset FGR (gestational age at diagnosis <32 weeks; n=30) or late-onset FGR (≥32 weeks; n=44). Two pregnancies in the early-onset group were still ongoing at the time of analysis and were excluded from outcome assessment (final n=72: early n=28, late n=44). The Mann-Whitney U test was used for continuous variables and Fisher`s exact test for categorical variables, with significance set at p<0.05. Results remained consistent in direction after excluding twin gestations (sensitivity analysis). ***Results***: Maternal age, body mass index (BMI), parity, comorbidities, history of FGR, prophylactic aspirin use, and abnormal Doppler findings were similar between groups (p>0.05). Perinatal loss (medical termination of pregnancy or stillbirth) occurred exclusively in the early-onset group: 4/28 (14.3%) vs 0/44 (0%) in the late-onset group (p=0.020). Among live births, the early-onset group had a significantly earlier gestational age at delivery (median 35 vs 37 weeks; p=0.027), lower birth weight (median 1800g vs 2200g; p=0.031), and longer neonatal hospital stay (median 19 vs 4 days; p=0.004), with a trend toward higher admission to special/neonatal care (67% vs 42%; p=0.075). ***Conclusion***: Early-onset FGR was associated with significantly worse maternal-fetal outcomes, including a higher rate of perinatal loss and, among live births, greater prematurity, lower birth weight, and longer neonatal hospitalization. These findings reinforce the importance of intensive surveillance and early counselling in these pregnancies.

FMM CASE REPORT / STUDY

RECOGNIZING POSTERIOR REVERSIBLE ENCEPHALOPATHY (PRES) IN PREGNANCY- PRINCIPLES OF MANAGEMENT

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Problem statement: Posterior reversible encephalopathy syndrome (PRES) is an acute neurologic syndrome characterized by vasogenic cerebral edema, usually presents with headache, visual disturbances, altered mental status, etc. In pregnancy, PRES

most commonly occurs in association with preeclampsia or eclampsia and may present with overlapping clinical features, making diagnosis challenging. ***Method***: Case report, hence, institutional review board (IRB) exempt. ***Results***: A previously healthy 19-year-old female at 32w0d gestation presented with headache and bilateral blindness described as "blacked-out" vision. She was admitted with suspected new-onset eclampsia. Upon admission, she had a witnessed seizure with blood pressure of 194/94 mmHg. She was treated with labetalol for blood pressure control and magnesium sulfate for seizure prophylaxis and prior to that received Lorazepam. Subsequently had emergency cesarean delivery, and magnesium sulfate was continued for 24 hours postpartum for seizure prophylaxis. Preoperative CT imaging demonstrated bilateral hypoattenuation involving the temporal, parietal, and occipital lobes. MRI obtained on postoperative day 1 confirmed diagnosis of PRES. Postpartum, she continued to have hypertensive episodes, with blood pressure peaking at 179/106 mmHg, requiring treatment with nifedipine and intravenous labetalol until stabilization on postoperative day 2. Electroencephalography (EEG) ruled out epilepsy, and the patient was discharged home on postoperative day 4 with nifedipine, aspirin, and clopidogrel. One week after discharge from hospital, she had no symptoms and her blood pressure was 124/82 mmHg. Repeat MRI one month later demonstrated complete resolution of the radiographic findings consistent with PRES. ***Conclusion***: PRES should be considered in pregnant patients presenting with acute neurologic symptoms and blindness in third-trimester in the setting of hypertension and/or preeclampsia. Neuroimaging, particularly MRI, is essential for diagnosis and differentiation from isolated eclampsia. Early recognition, prompt blood pressure control, seizure management, and delivery when indicated are critical to preventing irreversible neurologic injury and achieving favorable maternal outcomes.

DISCORDANT CLOSED SPINA BIFIDA IN DICHORIONIC TWINS AFTER DONOR-OOCYTE IVF: A CASE REPORT

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Spina bifida is a neural tube anomaly caused by the inadequate closure of the embryonic neural tube by the 28th day after conception, resulting in differing levels of osseous, meningeal, and spinal cord engagement. Open Spina Bifida (OSB) involves exposed neural tissue and is frequently associated with severe neurological impairment and cranial abnormalities such as Chiari II malformation.Closed Spina Bifida (CSB), or spina bifida occulta, is a skin-covered defect with no protrusion of neural tissue. It is difficultly diagnosed antenatally and can present with minimal or no symptoms. Diagnosis requires a thorough antenatally and can present with minimal or no symptoms. Diagnosis requires a thorough ultrasonographic examination of the spine, including the conus medullaris, and the absence of cranial markers of spinal dysraphism.Second-trimester ultrasound screening was perfomed at 21 gestational weeks in a 41-year-old primigravida patient with a dichorionic diamniotic twin pregnancy conceived by in vitro fertilization using donor oosytes. Ultrasound evaluation demonstrated that twin A had closed spina bifida with a skin-covered lumbosacral defect without exposed neural tissue.Twin B showed normal anatomical development. Amniocentesis was performed, and evaluation with an aCGH array (array comparative genomic hybridization) showed no chromosomal abnormalities in either of the fetuses. Further evaluation with fetal MRI confirmed these findings. Delivery was performed by elective cesarean section at 37 weeks.Postnatal assessment confirmed closed spina bifida in Twin A with a skin-covered lumbosacral defect and no protrusion of neural tissue.Neurological examination showed no weakness in the lower limbs, and it is likely that the baby will not experience bladder or bowel incontinence. Postnatal imaging confirmed the closed defect. Twin B was normal on examination at birth. Neonates were discharged in good condition, and Twin A was referred for routine neurosurgical follow-up.This case highlights the importance of differentiating CSB from OSB in prenatal diagnosis, as CSB carries a significantly better prognosis. Although prenatal diagnosis of CSB is infrequent, targeted neurosonography, 3D ultrasonography, and MRI can improve detection rates. Accurate CSB characterization enables precise prognostic counseling, delivery planning, and neonatal management, thereby optimizing outcomes in these complex scenarios. Discordant congenital anomalies in dichorionic twin pregnancies also require structured counseling.



Figure 1: Ultrasonographic images from the second-trimester anatomy scan demonstrated a closed spina bifida, with intact but overlapping skin clearly visible over the defect. Brain evaluation revealed no cranial abnormalities and no associated intracranial signs

THE VALUE OF PARENTAL GENOTYPING AND GENETIC COUNSELING IN FAMILIAL 22Q11.21 MICRODUPLICATION: FROM PRENATAL DIAGNOSIS TO LIVE BIRTH

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Problem statement: Familial copy-number variants with variable phenotypic expression complicate reproductive counseling. We report a case in which parental genotyping provided critical context for reproductive decision-making after PGT. ***Methods***: A 37-year-old woman with a previous pregnancy termination for a fetal chromosomal abnormality was referred for fertility treatment. Her first pregnancy was conceived naturally, and prenatal screening indicated a high risk for Down syndrome. Amniocentesis identified a 22q11.21 microduplication, and the pregnancy was terminated before parental carrier status was known. Subsequent parental testing demonstrated the same duplication in the clinically unaffected mother. The couple underwent IVF with PGT after counseling regarding transmission risk and variable phenotypic expression. Two blastocysts underwent NGS-based PGT and were reported as euploid; however, the approximately 2.1-Mb familial duplication was below the assay's approximately 5-Mb resolution and could not be excluded. A single euploid blastocyst was transferred, resulting in pregnancy. ***Results***: At 12 weeks, ultrasonography showed increased nuchal translucency of 5.8 mm with suspected cystic hygroma. Chorionic villus sampling at 13 weeks identified an overlapping 2.9-Mb duplication at 22q11.21. After counseling regarding the clinically unaffected maternal carrier status and variable phenotypic expression, the couple elected to continue the pregnancy. Subsequent detailed ultrasonography showed no structural abnormalities. The pregnancy was complicated by gestational diabetes mellitus. At 38+4 weeks, on September 8, 2025, a male infant weighing 3,740 g was delivered by cesarean section, with Apgar scores of 8 and 9 at 1 and 5 minutes, respectively. No clinically apparent abnormalities have been identified to date. ***Conclusion***: Parental genotyping and comprehensive genetic counseling are essential when interpreting familial copy-number variants with variable phenotypic expression. The familial 22q11.21 microduplication was below the resolution of PGT and could not be excluded despite a euploid result. Identification of the same duplication in a clinically unaffected parent provided important context for interpreting the fetal finding and supported informed decision-making regarding pregnancy continuation. Although parental carrier status cannot predict the offspring phenotype, understanding PGT limitations together with parental genetic information and appropriate counseling can substantially influence reproductive decision-making.

CLINICAL CROSSROADS: MANAGING THE OVERLAP BETWEEN TUBAL ABORTION AND ABDOMINAL PREGNANCY

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Problem statement: Secondary abdominal pregnancy following tubal abortion is a rare and life-threatening form of ectopic pregnancy. Because of its nonspecific clinical presentation and overlapping diagnostic findings, preoperatively, its diagnosis is difficult. Hence, it poses a challenge in both surgical and placental management. ***Methods***: This is a case of a 27-year-old Gravida 1 Para 0 at 17 weeks gestation presented with progressive hypogastric pain without vaginal bleeding. Ultrasonography demonstrated a live extrauterine pregnancy with no definite placental attachment to the myometrium, raising suspicion for abdominal pregnancy. While awaiting surgery, the patient developed an acute abdomen and underwent emergency exploratory laparotomy. Intraoperative findings, surgical management, histopathology, and postoperative outcomes were reviewed. ***Results***: Exploratory laparotomy revealed approximately 2 L of hemoperitoneum admixed with amniotic fluid, a ruptured gestational sac containing a 17-week fetus, and a placenta densely adherent to the omentum and sigmoid colon. The right fallopian tube was markedly congested with residual placental tissue but showed no evidence of tubal rupture, consistent with secondary abdominal pregnancy following tubal abortion. Complete removal of the products of conception and placenta, adhesiolysis, evacuation of hemoperitoneum, and right salpingectomy were successfully performed. Histopathology confirmed an extrauterine pregnancy. The patient had an uncomplicated postoperative recovery. ***Conclusion***: This case highlights the diagnostic challenge in distinguishing tubal abortion with secondary abdominal implantation from primary abdominal pregnancy. Early recognition, a high index of suspicion, and prompt surgical intervention are critical to reducing maternal morbidity. Careful intraoperative assessment of tubal integrity and placental implantation is essential in guiding surgical management and achieving favorable maternal outcomes.

ABDOMINAL PREGNANCY: A RARE CASE SERIES

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Problem statement: Abdominal pregnancy is a rare form of ectopic pregnancy in which implantation occurs within the peritoneal cavity, excluding tubal, ovarian, or intraligamentary implantation. It carries substantial maternal risk and presents both clinical and bioethical challenges, particularly in balancing maternal safety, potential fetal considerations, patient autonomy, and the risks associated with operative management. ***Methods***: We present a descriptive case series of two multigravid women diagnosed with abdominal pregnancy. Clinical presentation, diagnostic findings, surgical management, multidisciplinary involvement, postoperative outcomes, and relevant bioethical considerations in clinical decision-making were reviewed. ***Results***: Both patients presented with hypogastric pain and were diagnosed with extrauterine pregnancy. Management involved surgical intervention with coordinated multidisciplinary care, including Thoracic and Cardiovascular Surgery, Urology, Gynecologic Oncology, and Anesthesiology. Decisions were guided by the principles of beneficence and nonmaleficence, prioritizing maternal safety while supporting informed, patient-centered care. Both patients were closely monitored postoperatively and had uneventful recovery and postoperative courses. ***Conclusion***: Abdominal pregnancy is a rare but potentially life-threatening condition requiring timely recognition and individualized management. Beyond surgical complexity, its management entails important bioethical considerations involving autonomy, beneficence, nonmaleficence, and shared decision-making. A high index of suspicion, prompt intervention, clear communication with the patient, and coordinated multidisciplinary care are essential to achieving safe and ethically responsible outcomes.

Disclosure of interest: *None declared.*



POSTPARTUM PREECLAMPSIA COMPLICATED BY ACUTE PULMONARY EDEMA: A RARE CASE REPORT

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Background: Postpartum preeclampsia is an insufficiently studied clinical entity that may present with new-onset hypertension 48 hours to 6 weeks after delivery. It remains unclear whether it represents a distinct disorder from preeclampsia diagnosed during pregnancy. Although hypertension during the puerperium can arise in previously normotensive women, it more commonly occurs in those with hypertensive disorders of pregnancy. Acute pulmonary edema is a rare but potentially life-threatening manifestation of postpartum preeclampsia. We herein present a case of postpartum preeclampsia complicated by acute pulmonary edema. ***Case Presentation***: A 39-year-old woman presented to the Emergency Department on the 10th postoperative day following cesarean section due to dyspnea. On admission, her blood pressure was 170/98 mmHg, heart rate 48 bpm, SpO_2 91%, with mild tachypnea. Clinical examination revealed bilateral ankle edema and fine inspiratory crackles at both lung bases. Arterial blood gas analysis demonstrated hypoxemia (pO_2 61.3 mmHg). Two intravenous lines were established, a urinary catheter was inserted, and continuous monitoring was initiated. Oxygen was administered via nasal cannula at 3 L/min, and the patient was placed in a semi-upright position. Laboratory evaluation showed mildly elevated liver enzymes, LDH 332 U/L, and D-dimers 3793 ng/mL. Chest radiography demonstrated bilateral perivascular opacities, pleural effusions, and increased vascular markings. Computed tomography excluded pulmonary embolism but revealed findings consistent with acute pulmonary edema, without cardiomegaly or pericardial effusion. Transthoracic echocardiography showed normal cardiac function with preserved ejection fraction (65%). Oral amlodipine (5 mg) and intravenous furosemide (40 mg) were administered immediately. The patient was admitted with a diagnosis of postpartum preeclampsia complicated by pulmonary edema. Magnesium sulfate therapy was initiated along with antihypertensive treatment and diuretics. A 24-hour urine collection revealed proteinuria of 520 mg/24 h. During hospitalization, serum magnesium levels reached 4.2 mg/dL. The patient achieved satisfactory diuresis and gradual blood pressure control and was discharged on postpartum day 14. ***Conclusion***: Early recognition, careful monitoring, and timely intervention are essential to ensure favorable maternal outcomes. Clinicians should maintain heightened vigilance during the postpartum period, and comprehensive patient counseling prior to discharge is crucial to identify warning signs and prevent complications.

FMM OTHER

NON-PHARMACOLOGİCAL APPROACHES İN POST-CESAREAN PAİN MANAGEMENT

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Background: Incision pain, headache, gas and abdominal distension, nausea-vomiting, stress, fatigue, and sleep disturbances are frequently observed in the post-cesarean period. The use of non-pharmacological methods in addition to pharmacological treatments supports pain control and can reduce analgesic requirements. In the literature, aromatherapy applied with chamomile, orange, and lavender oils is reported to reduce pain

levels. The aim of this section is to evaluate non-pharmacological approaches used in the management of postoperative pain in the post-cesarean period and their place in nursing care in light of current evidence. Back massage, hand and foot massage, and Benson relaxation technique have been shown to be effective in reducing pain intensity and severity. In addition, acupressure applied to the LI4 point has been shown to reduce pain scores; Reflexology and warm water hand and foot baths have been found to be beneficial in relieving pain. Nurses` systematic pain assessment and planning and implementation of appropriate non-pharmacological interventions increase the effectiveness of care ***Method***: Literature findings on non-pharmacological applications used in post-cesarean pain management were reviewed; their effects on pain intensity, analgesic requirements, and maternal comfort were evaluated. In addition, the responsibilities of nurses in pain management and their roles in care practices were discussed. ***Results***: Non-pharmacological methods such as aromatherapy, massage, relaxation techniques, acupressure, reflexology, and warm applications are effective and safe supportive interventions in post-cesarean pain management. Using these methods in conjunction with pharmacological treatment strengthens pain control, increases maternal comfort, and supports the healing process. Integrating evidence-based non-pharmacological practices into nursing care significantly contributes to improving the quality of post-cesarean care.
Keywords: Cesarean section, postoperative pain, non-pharmacological methods, , nursing care.

DIGITAL HEALTH LITERACY AND ATTITUDES TOWARD ARTIFICIAL INTELLIGENCE AMONG MIDWIFERY STUDENTS: IMPLICATIONS FOR FUTURE MATERNITY CARE

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Problem statement: Artificial intelligence (AI) is increasingly relevant to maternity care, including risk assessment, fetal monitoring, clinical decision support, documentation, and education. Future midwives require digital health literacy to evaluate online and AI-generated information critically, protect sensitive reproductive data, and use emerging technologies without compromising professional judgement or woman-centred care. This study examined digital health literacy and attitudes toward AI among undergraduate midwifery students in Türkiye and evaluated whether digital health literacy was independently associated with AI attitudes. ***Methods***: This descriptive, cross-sectional, correlational study included 552 undergraduate midwifery students recruited from universities across Türkiye between May and August 2026. Data were collected using a participant characteristics form, the 18-item Digital Health Literacy Instrument, and the 26-item Student Attitudes Toward Artificial Intelligence Scale. Descriptive statistics, group comparisons, Pearson correlation, and hierarchical multiple linear regression were performed. ***Results***: The mean digital health literacy score was 47.51 ± 7.78, and the mean AI attitude score was 89.30 ± 17.06. Evaluating information reliability had the lowest mean score among the digital health literacy dimensions (6.88 ± 1.96). Only 25.2% of students had previously received education or information about digital health technologies, while 39.1% had received education or information about AI. Digital health literacy was positively correlated with AI attitudes ($r = .346$, $p < .001$). After adjustment for age, year of study, internet use, digital health application use, trust in digital health applications, and previous digital health and AI education, higher digital health literacy remained independently associated with more positive AI attitudes ($B = 0.707$, $\beta = .322$, $p < .001$, 95% confidence interval: 0.531–0.882). Its inclusion explained an additional 9.8% of the variance, and the final model explained 15.8%. ***Conclusion***: Digital health literacy was the strongest independent correlate of AI attitudes among midwifery students. Progressive integration of critical information appraisal, AI ethics, privacy, and evaluation of AI-generated maternity information into midwifery curricula may help prepare future midwives to use AI-supported technologies critically, ethically, and in accordance with woman-centred care.

ADHERENCE TO THE ENHANCED RECOVERY AFTER SURGERY PROTOCOL FOR CESAREAN DELIVERY: EVALUATION OF CLINICAL PRACTICE AT A PRIVATE HOSPITAL IN MONTEVIDEO, URUGUAY

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Problem statement: Enhanced Recovery After Surgery (ERAS) protocols for cesarean delivery aim to standardize perioperative care, improve maternal recovery, and enhance patient safety. However, their effectiveness depends on adherence to individual protocol components. Data on ERAS adherence in cesarean delivery are limited in our setting. This study aimed to assess adherence to ERAS recommendations at Hospital Britanico in Montevideo, Uruguay, and identify components with the highest and lowest compliance. ***Methods***: An observational, descriptive, retrospective study was conducted through medical record review of 119 patients who underwent scheduled or emergency cesarean delivery between July and August 2025. ***Results***: Adherence to preoperative components was variable. Antacid/antihistamine prophylaxis was administered in 1.6% of patients, paracetamol in 51.2%, tranexamic acid in 13.4%, and postoperative nausea and vomiting prophylaxis in 62.1%. Among scheduled cesarean deliveries, adherence to a 2-hour fasting period for clear liquids was 16%, while adherence to a 6-hour fasting period for solid foods was 38%. Administration of cephalosporins within 60 minutes before the procedure was documented in 18% of patients. Azithromycin was administered in 5.7% of patients with arrested labor or premature rupture of membranes. Skin preparation with chlorhexidine showed 91.6% adherence. Two-layer uterine closure was performed in 30.2% of cases, while intradermal skin closure was performed in 100%. Postoperatively, 94.1% of patients received scheduled analgesia with ketoprofen combined with paracetamol, and 89.9% achieved mobilization within the first 6 hours. Urinary catheter removal within the first 12 hours was achieved in 64.4% of patients. Oral intake within the first 24 hours was achieved in all evaluated patients. Median hospital length of stay was 3 days (range: 2–11), and 89.1% of patients were discharged within the first 4 days. Some protocol components could not be assessed because of missing documentation in the medical records, including measures for the prevention of hypothermia, preoperative carbohydrate administration, and certain aspects of surgical technique. ***Conclusion***: Adherence to the ERAS protocol was heterogeneous. High adherence was observed for several intraoperative and postoperative measures, whereas the main areas for improvement were concentrated in the preoperative period. Adherence to evidence-based protocols has been associated with improved patient safety outcomes.

GROWTH, DEVELOPMENT, AND ENDOCRINE OUTCOMES IN CHILDREN CONCEIVED THROUGH ASSISTED REPRODUCTIVE TECHNOLOGIES: A KAZAKHSTAN CASE–CONTROL STUDY

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Problem statement: The increasing use of assisted reproductive technologies (ART) has resulted in more than 13 million births worldwide, including over 45,000 in Kazakhstan. Concerns remain regarding the long-term health of ART-conceived children, particularly growth and endocrine outcomes. This study assessed growth, development, and endocrine status in children conceived through ART. ***Methods***: An observational case–control study included 120 ART-conceived children and 132 naturally conceived (NC) children aged under 5 years. Medical history, physical examination, and laboratory assessment of endocrine status were performed in both groups. Statistical analysis was conducted using IBM SPSS Statistics version 26. ***Results***: No significant differences were observed between ART and NC children in the prevalence of obesity or tall stature. Rates of genital and pubertal abnormalities, including cryptorchidism, genital hypoplasia in boys, and premature thelarche in girls, were comparable between groups. Intracytoplasmic sperm injection (ICSI) was not associated with genital pathology in boys ($p=0.758$). Most children demonstrated euthyroid status, with thyroid-stimulating hormone and thyroxine levels within age-appropriate reference ranges. No significant abnormalities were identified in carbohydrate metabolism, insulin-

like growth factor 1, or growth hormone levels in ART-conceived children compared with controls. ***Conclusions***: Children conceived through ART did not demonstrate significant differences in growth, development, or endocrine status during early childhood compared with naturally conceived peers.

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DIFFERENTIAL DIAGNOSIS BETWEEN COMPLETE HYDATIDIFORM MOLE WITH COEXISTING FETUS AND PLACENTAL DYSPLASIA: FOCUSING ULTRASOUND AND MR IMAGING FINDINGS

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Problem statement: Complete hydatidiform mole with a coexisting fetus (CHMCF) and placental mesenchymal dysplasia (PMD) can demonstrate similar imaging findings despite having different clinical outcomes. This study aimed to identify key imaging features for differentiating these two entities. ***Methods***: We retrospectively reviewed prenatal ultrasonography and magnetic resonance imaging performed at our institution between 2016 and 2024. Placental evaluation was conducted using grayscale and color Doppler ultrasonography. Cases of complete hydatidiform mole without a coexisting fetus, partial mole, placental hemorrhage, and chorioangioma were excluded. ***Results***: A total of five pathologically confirmed cases were included (CHMCF, n=3; PMD, n=2). Imaging findings were correlated with placental histopathology. CHMCF demonstrated two distinct placental patterns on prenatal imaging: (1) a characteristic vesicular cystic pattern and (2) a normal homogeneous echogenic placenta, with approximately equal proportions. The umbilical cord was inserted centrally within the normal placental component. In contrast, PMD showed a predominance of vesicular cystic placental changes with a relatively small volume of normal placenta. The umbilical cord was inserted at the interface between the cystic and normal placental components. ***Conclusion***: Accurate differentiation between CHMCF and PMD is essential due to differences in management and prognosis. Recognition of these distinguishing imaging features may help prevent misdiagnosis.

CHANGES IN BIRTH RATES FOLLOWING THE COVID-19 PANDEMIC: EVIDENCE FROM A GREEK SECONDARY HOSPITAL

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Problem statement: The COVID-19 pandemic significantly affected public health, psychosocial stability, and demographic behaviors. This study investigates the changes in the number of births at a secondary hospital in Greece before, during, and after the COVID-19 pandemic. ***Methods***: Births recorded at a secondary hospital between November 2020 and April 2022 were examined—i.e., nine months after the official onset of the pandemic (March 2020) until the lifting of restrictive measures in Greece. This period was compared with two other equally long periods: the pre-pandemic (November 2017 – April 2019) and the post-pandemic period (November 2023 – April 2025). Identical months were selected for each period to eliminate seasonality as a confounding variable. Normality tests (Shapiro-Wilk) and statistical analysis of differences (t-test) were conducted using SPSS 25.0. ***Results***: In the pre-pandemic period, 682 births were recorded, with a monthly average of 37.9±7.1 deliveries. During the COVID-19 pandemic, the number of births decreased to 595 (mean 33.1±7.6 births/month), while in the post-pandemic period it further declined to 490 (mean 27.2±6.7 births/month). Data distributions were normal according to the Shapiro-Wilk test. The reduction in births during the pandemic compared to the pre-pandemic period (12.8%) was not statistically significant ($p = 0.093$). In contrast, the further decrease in the post-pandemic period compared to the pandemic period (17.6%) was statistically significant ($p = 0.024$) ***Conclusion***: The findings suggest that although a decline in births was observed during the COVID-19 pandemic, it was not statistically significant within the local context. However, the statistically significant further reduction in the post-pandemic period supports the hypothesis of a delayed impact of the pandemic on childbearing decisions. Study limitations may include region-specific factors and the lack of data on qualitative maternal characteristics. Nevertheless, the methodological adjustment for seasonality enhances the validity of the comparisons. Further investigation into the socioeconomic and psychological consequences of the pandemic is warranted, as is the development and targeting of population policy interventions in the post-pandemic era.

GENETICS

WHEN ISOLATED SMALL FETAL SIZE INDICATES A MONOGENIC DISORDER: A CASE OF BOHRING–OPITZ SYNDROME

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Problem statement: Persistent isolated small fetal size without structural anomalies presents a diagnostic challenge in prenatal medicine. Distinguishing constitutionally small fetuses from those with underlying genetic disorders remains difficult, and the role of advanced genetic testing in such cases is not clearly defined. ***Methods***: We reviewed prenatal, postnatal, and genetic findings in a newborn diagnosed with Bohring–Opitz syndrome. First-trimester combined screening, cfDNA testing, serial ultrasound examinations, postnatal clinical assessment, and whole-exome sequencing results were analyzed. ***Results***: The only prenatal finding was persistent isolated small fetal size. First-trimester combined screening showed a borderline increased risk associated with low pregnancy-associated plasma protein A (PAPP-A) levels, while cfDNA testing indicated a low risk for common chromosomal aneuploidies. Serial ultrasound examinations demonstrated fetal biometry consistently below the expected range for gestational age, without structural abnormalities, Doppler evidence of placental insufficiency, or signs of fetal growth restriction. Following delivery, the neonate presented with dysmorphic features and neurological abnormalities. Whole-exome sequencing identified a heterozygous likely pathogenic ASXL1 variant, c.2511dup (p.Lys838GlufsTer13), confirming the diagnosis of Bohring–Opitz syndrome. ***Conclusion***: This case demonstrates that persistent isolated small fetal size may represent the only prenatal manifestation of a monogenic disorder. Distinguishing constitutionally small fetuses from those with underlying genetic conditions remains challenging. Advanced genetic testing should be considered in selected pregnancies with unexplained persistent small fetal size, even in the absence of structural anomalies.

Disclosure of interest: *None declared*

HIGH RISK PREGNANCY

TEMPORAL CHANGES IN THROMBOELASTOGRAPHY AND CONVENTIONAL COAGULATION PARAMETERS ACCORDING TO HEMORRHAGE SEVERITY IN PLACENTA ACCRETA SPECTRUM

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Problem statement: Placenta accreta spectrum (PAS) is associated with major obstetric hemorrhage and altered hemostasis. Conventional coagulation tests provide limited information on clot kinetics and strength, whereas thromboelastography (TEG) provides a dynamic assessment of whole-blood coagulation. We characterized temporal changes in TEG and conventional coagulation parameters according to hemorrhage severity in PAS. ***Methods***: We performed a longitudinal analysis of patients with PAS undergoing cesarean delivery and surgical management. Some patients received

prophylactic abdominal aortic balloon occlusion (AABO) as part of the parent study. Patients were categorized by estimated blood loss (EBL) as <2000 mL or ≥2000 mL. Coagulation was assessed 24 hours preoperatively, 10 minutes after delivery, 30 minutes postoperatively, and 24 hours postoperatively. TEG parameters included R, K, α-angle, maximum amplitude (MA), coagulation index (CI), and LY30. Conventional tests included prothrombin time (PT), international normalized ratio (INR), activated partial thromboplastin time (APTT), thrombin time, and fibrinogen. Between-group comparisons used appropriate parametric or non-parametric tests with Benjamini–Hochberg false discovery rate correction. ***Results***: No baseline differences were observed. At 10 minutes, the ≥2000-mL group had lower fibrinogen (2.70 vs. 3.30 g/L; adjusted p=0.001), prolonged PT (p=0.010) and PT time (p=0.019), and higher INR (p=0.032). At 30 minutes, fibrinogen remained lower (2.30 vs. 3.10 g/L; p<0.001), with prolonged PT (p=0.001) and PT time (p=0.006) and higher INR (p=0.001). At 24 hours, TEG showed longer K time (2.10 vs. 1.40 min; p=0.002), lower α-angle (62.75° vs. 68.10°; p=0.011), MA (65.30 vs. 68.80 mm; p=0.001), and CI (p=0.021) in the ≥2000-mL group. Fibrinogen remained lower (2.80 vs. 3.40 g/L; p=0.005), whereas PT and INR no longer differed. ***Conclusion***: Major hemorrhage in PAS was associated with early abnormalities in fibrinogen and conventional coagulation parameters, followed by persistent impairment of clot formation and strength on TEG at 24 hours. TEG may provide complementary information for postoperative assessment of hemostatic function following major PAS-related hemorrhage.

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FROM 32 MYOMAS TO MOTHERHOOD: SUCCESSFUL IVF PREGNANCY AFTER MULTIPLE MYOMECTOMIES

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Problem statement: Multiple myomectomies may substantially alter uterine anatomy and present challenges for fertility and subsequent pregnancy management. Evidence regarding pregnancy outcomes after repeated surgical removal of numerous leiomyomas is limited, while myomectomy performed during cesarean delivery remains a carefully selected surgical decision. We present a successful in vitro fertilization (IVF) pregnancy following multiple laparoscopic, hysteroscopic, and open uterine procedures, culminating in cesarean delivery with concomitant myomectomy. ***Methods***: A nulliparous woman with five years of primary infertility underwent extensive treatment for uterine leiomyomas. In 2022, 15 leiomyomas were removed laparoscopically and a submucosal leiomyoma was removed hysteroscopically. Four additional leiomyomas were removed laparoscopically in 2023, followed by open myomectomy with removal of 13 leiomyomas in 2024 and hysteroscopic polypectomy in 2025. After three unsuccessful IVF attempts, pregnancy was achieved following the fourth IVF/embryo transfer procedure. The pregnancy was managed as high-risk with intensive maternal and fetal surveillance. ***Results***: Serial ultrasound examinations demonstrated appropriate fetal growth, normal amniotic fluid volume, and reassuring umbilical artery Doppler findings. Several residual uterine leiomyomas remained visible during pregnancy. Antenatal corticosteroids were administered because of the anticipated risk of preterm delivery. At 36+1 weeks of gestation, cesarean delivery was performed under general anesthesia. A live female infant weighing 2980 g and measuring 50 cm was delivered, with Apgar scores of 9/10. Two intramural leiomyomas adjacent to the uterine incision were identified and removed during cesarean delivery. Hemostasis was achieved without documented intraoperative complications. Histopathological examination confirmed uterine leiomyomas. The postoperative course was uncomplicated, and the patient was discharged in good general condition on the third postoperative day. ***Conclusion***: Successful pregnancy is possible after multiple extensive uterine surgeries for leiomyomas, although such pregnancies require individualized planning and close surveillance. This case also demonstrates that concomitant myomectomy at cesarean delivery may be feasible in carefully selected circumstances when dictated by intraoperative findings and performed with meticulous hemostatic control.

Disclosure of interest: *None declared.*

PREGNANCY AGAINST THE ODDS: SUCCESSFUL MATERNAL AND NEONATAL OUTCOME IN A WOMAN WITH SECONDARY FANCONI SYNDROME

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Problem statement: Fanconi syndrome is a disorder of proximal renal tubular function that may lead to electrolyte and acid-base disturbances. Pregnancy in affected patients may represent a clinical challenge because physiological adaptations of pregnancy can further increase renal and metabolic demands. We report a successful pregnancy in a young woman with secondary Fanconi syndrome and multiple associated comorbidities, emphasizing the importance of multidisciplinary surveillance. ***Methods***: A 25-year-old primigravida with secondary Fanconi syndrome was referred for tertiary obstetric care. Her medical history was significant for embryonal rhabdomyosarcoma of the right side of the face treated during childhood, left-sided grade II vesicoureteral reflux, hypothyroidism, and absolute growth hormone deficiency. The pregnancy was followed jointly by obstetricians, nephrologists, and endocrinologists. Serial assessment included renal function, electrolytes, acid-base status, proteinuria, blood pressure, thyroid function, and fetal growth. Treatment during pregnancy included potassium citrate, potassium chloride, sodium bicarbonate, levothyroxine, and vitamin D supplementation. ***Results***: Renal function remained preserved throughout pregnancy, with serum creatinine ranging from 64 to 81 µmol/L and without pathological proteinuria or clinically significant acid-base or electrolyte disturbances. Renal ultrasonography demonstrated bilateral renal parenchymal reduction, with persistent hypotrophy of the left kidney. Fetal growth, amniotic fluid volume, and umbilical artery Doppler findings remained appropriate during serial surveillance. During late pregnancy, elevated blood pressure values of up to 160/80 mmHg were recorded and methyldopa therapy was introduced. Following multidisciplinary assessment, delivery by cesarean section was planned. At 38 weeks of gestation, a live female infant weighing 2800 g and measuring 50 cm was delivered under spinal anesthesia, with Apgar scores of 10/10. The postoperative course was uncomplicated, and the mother was discharged in good general condition on the third postoperative day. ***Conclusion***: This case demonstrates that a successful term pregnancy with favorable maternal and neonatal outcomes is possible in women with secondary Fanconi syndrome despite multiple renal and endocrine comorbidities. Close multidisciplinary surveillance, individualized metabolic replacement, and serial assessment of renal function and fetal well-being may be essential for achieving a favorable pregnancy outcome.

Disclosure of interest: *None declared.*

EFFECTS OF GESTATIONAL HYPOTHYROIDISM AND HYPOTHYROXINEMIA ON LIPID METABOLISM

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Problem statement: Gestational hypothyroidism and hypothyroxinemia are common clinical thyroid disorders during pregnancy, which may disrupt gestational metabolic homeostasis and affect lipid metabolism. However, the effects of these two conditions on lipid metabolism remain inconclusive. This study aimed to evaluate the associations of gestational hypothyroidism and hypothyroxinemia with maternal lipid metabolism. ***Methods***: A multicenter prospective cohort study was conducted, recruiting a total of 166,298 pregnant women from February 12, 2018, to December 31, 2022.***Results***: After strict inclusion and exclusion criteria, 78,685 participants were enrolled, including 71,843 with normal thyroid function, 89 with hypothyroidism, and 1,015 with hypothyroxinemia. The hypothyroidism group presented significantly higher levels of triglyceride (TG) (1.37±0.81 vs

1.22±0.56 mmol/L, P=0.012) and low-density lipoprotein cholesterol (LDL-C) (2.38±0.56 vs 2.24±0.60 mmol/L, P=0.028) than the normal thyroid group. In the hypothyroxinemia group, significantly elevated levels of TG (1.44±0.64 mmol/L), total cholesterol (TC) (4.40±0.73 mmol/L), and LDL-C (2.41±0.62 mmol/L) were observed (all P<0.001). Multiple linear regression analysis showed that thyroid-stimulating hormone (TSH) levels were positively correlated with TC, TG and LDL-C (TC: β=0.032, 95%CI: 0.016–0.025; TG: β=0.032, 95%CI: 0.008–0.013; LDL-C: β=0.026, 95%CI: 0.007–0.012). Free thyroxine (FT4) levels were negatively correlated with TC, TG, high-density lipoprotein cholesterol (HDL-C) and LDL-C (TC: β=-0.018, 95%CI: -0.09–-0.004; TG: β=-0.049, 95%CI: -0.010–-0.008; HDL-C: β=-0.017, 95%CI: -0.010–-0.04; LDL-C: β=-0.074, 95%CI: -0.016–-0.013). No significant correlation was found between thyroid peroxidase antibody (TPOAb) positivity and lipid indicators (P>0.05). The results remained stable after adjusting for age, pre-pregnancy BMI, education level, conception mode, parity, and L-thyroxine treatment. After further adjustment for confounding factors, gestational hypothyroidism was independently associated with elevated TG and LDL-C levels (TG: β=0.007, 95%CI: 0.008–0.237; LDL-C: β=0.007, 95%CI: 0.005–0.257), and hypothyroxinemia was independently correlated with increased TG and LDL-C levels (TG: β=0.034, 95%CI: 0.136–0.202; LDL-C: β=0.027, 95%CI: 0.110–0.182). ***Conclusion***: Gestational hypothyroidism and hypothyroxinemia are closely associated with gestational dyslipidemia, mainly manifested as elevated TG and LDL-C levels, with hypothyroxinemia exerting a more prominent effect. Thyroid dysfunction may participate in the development of gestational lipid metabolism disorders, providing valuable evidence for early clinical identification and targeted intervention.

ACUTE ABDOMINAL PAIN IN PREGNANCY: WHEN DO WE CONSULT THE GENERAL SURGEON?

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Acute abdomen during pregnancy presents a unique diagnostic and therapeutic challenge. The most common non-obstetric causes of acute abdominal pain include, acute appendicitis, acute cholecystitis and intestinal obstruction. Diagnosis and management can be challenging due to the normal anatomical and physiological changes that occur during pregnancy. Therefore, determining the appropriate timing of surgical intervention is crucial, taking into consideration gestational age and the clinical condition of the mother. Although the second trimester has traditionally been considered the preferred period for non-obstetric surgery, emerging evidence challenges postponing necessary intervention solely because of gestational age. A structured literature review was performed in Pubmed, focusing on publications from January 2020 to August 2026. Data were collected regarding the mosto common non-obstetric surgical conditions during pregnancy, including acute appendicitis, acute cholecystitis and intestinal obstruction. Evidence regarding diagnostic imaging, non-operative versus operative management, laparoscopic versus open surgery, timing of intervention, and maternal and fetal outcomes were reviewed. Ultrasonography remains the preferred first-line imaging modality, as it does not involve ionizing radiation. When ultrasound findings are inconclusive, magnetic resonance imaging (MRI) presents an accurate second-line modality. Computed tomography (CT) may be considered, particularly in potentially life-threatening conditions such as bowel ischemia, perforation or complicated intestinal obstruction. Contemporary evidence supports timely surgical intervention when clinically indicated, with laparoscopy being feasible in appropriately selected pregnant patients. Laparoscopic appendectomy for acute appendicitis and laparoscopic cholecystectomy for acute cholecystitis are currently supported when operative treatment is indicated. In small bowel obstruction, conservative management may be considered in clinically stable patients once bowel ischemia and closed-loop obstruction have been excluded. A 2026 meta-analysis of 22 studies and 28,160 pregnancies associated laparoscopy with fewer maternal complications and lower preterm delivery rates than open surgery, although the observed icreased fetal-loss risk requires cautious interpretation. Pregnancy should not be regarded as a contraindication to appropriate diagnostic imaging or timely surgical intervention, irrespective of trimester. A multidisciplinary approach involving obstetricians, general surgeons, radiologists and anesthesiologists is essential to minimize diagnostic and therapeutic delays while optimizing maternal and fetal outcomes.

CHARACTERISTICS OF THE CYTOKINE RESPONSE IN PREGNANT WOMEN WITH GESTATIONAL DIABETES MELLITUS

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Problem statement: In pregnant women with gestational diabetes mellitus (GDM), an increase in proinflammatory cytokines is observed, reflecting chronic systemic inflammation and contributing to insulin resistance. A shift in the cytokine profile toward inflammation also increases the risk of perinatal complications. ***Methods***: A total of 52 pregnant women with metabolic disorders (obesity, GDM) were examined and divided into three groups: Group 1 – 16 pregnant women with obesity but without GDM; Group 2 – 19 pregnant women with obesity and GDM; Group 3 – 17 pregnant women with normal body mass index and GDM. At the time of the study, all patients were in the second trimester of pregnancy. The age of the examined women ranged from 22 to 40 years. The control group consisted of 16 women with physiological pregnancy. ***Results***: Analysis of serum cytokine concentrations revealed similar changes in women with excess body weight/obesity and in those with GDM. In both groups, the level of IL-2 was 2 times higher than the control values, and an increase in IL-6 and TNFα was also noted. In pregnant women with obesity, the level of IFNγ was higher than in healthy women and in patients with GDM. In women with a combination of GDM and obesity, an increase in IL-6 and TNFα was also observed; however, the level of IL-2 was 2 times lower than the control and 5 times lower than in isolated GDM or obesity. No significant differences in IL-8 were found. The increase in IL-2, IL-6 and TNFα in GDM probably contributes to increased insulin resistance and raises the risk of type 2 diabetes mellitus after childbirth, which is associated with oxidative stress and activation of proinflammatory mechanisms against the background of hyperglycemia. ***Conclusion***: Thus, cytokine profile changes in pregnant women with excess body weight/obesity and in pregnant women with GDM were comparable. Increased blood concentrations of IL-2, IL-6, IL-10, IFNγ and TNFα can be considered factors aggravating insulin resistance. In pregnant women with obesity, a self-sustaining inflammatory process is formed, associated with chronic insulin resistance and contributing to the development of GDM.

CONSERVATIVE MANAGEMENT OF ECTOPIC PREGNANCIES IN ATYPICAL LOCATIONS

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Ectopic pregnancies in atypical locations pose a therapeutic challenge due to their increased risk of hemorrhage and the lack of standardized management protocols. In this context, intrasac instillation of methotrexate (MTX) through transvaginal ultrasound-guided puncture represents a conservative alternative within an individualized approach to these patients. We present a retrospective case series from a tertiary referral hospital covering the period from January 2024 to December 2025. This procedure was performed in four patients who expressed a strong desire to preserve fertility and were considered at high surgical risk. The anatomical locations were two interstitial ectopic pregnancies, one cervical pregnancy, and one cesarean scar pregnancy. The mean gestational age at the time of the procedure was 7 weeks and 2 days. All cases showed an embryo with positive cardiac activity and serum β-hCG levels >5,000 IU/mL. The standard dose of MTX (50 mg/m² of body surface area) was administered systemically (intramuscularly), together with an additional 25 mg administered intrasac after aspiration of the gestational sac contents by transvaginal ultrasound-guided puncture. The procedure was performed under conscious sedation and intravenous antibiotic prophylaxis. On the visual analogue scale (VAS), patients reported a mean procedural pain score of 2. The mean hospital stay was 36 hours. Serum β-hCG levels were assessed on days 4 and 7 after

the procedure, showing a progressive decline in all cases. Patients underwent weekly ultrasound and laboratory follow-up until complete resolution, which was achieved in all cases. No major complications were reported. Management of ectopic pregnancies in atypical locations (interstitial/cornual, cervical, and cesarean scar pregnancies) using transvaginal ultrasound-guided puncture and local methotrexate (MTX) instillation represents a useful conservative treatment option in hemodynamically stable patients who wish to preserve fertility.

IS MATERNAL AGE A DIAGNOSIS? OBSTETRIC INTERVENTION AND OUTCOMES AFTER 40

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Problem statement: Obstetric risk increases progressively with maternal age, yet clinical practice often treats 40 years as a categorical threshold for intervention. Whether this threshold identifies residual biological risk or independently influences clinical decisions remains uncertain. We assessed whether women aged ≥40 years underwent more obstetric intervention than those aged 35–39 years after excluding major age-related comorbidities, and whether this was accompanied by greater maternal or neonatal morbidity. ***Methods***: Retrospective cohort study using linked maternal–fetal medicine and birth-registry data from a Portuguese tertiary hospital in 2025. Singleton pregnancies in women aged ≥35 years were included. Pregnancies complicated by hypertension, diabetes, medically assisted reproduction or multiple gestation were excluded. Women aged 35–39 years were compared with those aged ≥40 years. Primary outcomes were induction of labour and caesarean delivery. Secondary outcomes included preterm birth, birthweight <2500 g, five-minute Apgar score <7, postpartum haemorrhage and neonatal intensive care admission. Complete-case multivariable logistic regression adjusted for parity and previous caesarean delivery. ***Results***: Among 416 eligible pregnancies, 307 occurred in women aged 35–39 years and 109 in women aged ≥40 years. Induction increased from 33.8% to 43.1% and caesarean delivery from 33.9% to 43.1%. Adjusted associations remained positive but imprecise: adjusted odds ratio 1.47 (95% confidence interval 0.76–2.85) for induction and 1.17 (0.55–2.51) for caesarean delivery. No corresponding increase in morbidity was observed. Women aged ≥40 years had similar or numerically lower rates of preterm birth (5.5% versus 10.4%), low birthweight (11.0% versus 12.1%), five-minute Apgar score <7 (0% versus 0.7%) and neonatal intensive care admission (4.1% versus 3.7%). Postpartum haemorrhage was uncommon. ***Conclusion***: In otherwise uncomplicated pregnancies, crossing the 40-year threshold marked a change in obstetric management more clearly than in observed outcomes. The study lacked sufficient precision to confirm an independent age effect, and the absence of greater morbidity does not establish that intervention was unnecessary. Nevertheless, increased intervention without a parallel increase in morbidity raises the possibility that chronological age influences clinical decisions beyond individual risk. Age 40 should prompt individualised assessment and shared decision-making—not automatically redefine pregnancy as pathological.
Disclosure of interest: *The authors declare no conflicts of interest*

HEPATITIS E SEROPREVALENCE IN PREGNANCY

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Problem statement: The occurrence of Hepatitis E (HEV) infection in pregnant women is a significant concern for maternal and neonatal health. Detection of HEV can be done through anti-HEV antibodies (IgG and IgM) or RNA-based tests. Robust estimates of exposure of hepatitis E among pregnant women in north India is limited. So, this study was done to evaluate the seroprevalence of Hepatitis E in pregnant female. **Methods:** The prospective cohort study was conducted in Department of Obstetrics and Gynecology, King George Medical College, Lucknow for one year. The study was approved by the Institutional Ethical Committee (ECR/262/Inst/UP/2013RR-19 Ref code XV-PGTSC-IIA/P24). A 5ml blood sample was collected from each participant`s median cubital vein, centrifuged, and serum/plasma separated early to prevent hemolysis of red blood cells, and stored at -20°C for further analysis. The study used the WANTAI HEV IgG ELISA diagnostic kit manufactured in Beijing, a commercially available enzyme-linked immunosorbent assay for qualitative detection of IgG antibodies to Hepatitis E virus in human serum or plasma. Results were calculated by relating each specimen absorbance value to the cut-off value (C.O). All specimens fulfilled quality control criteria, and the index was defined as A/C.O.
Results: Out of 602 pregnant patients tested, 287 patients (47.7%) were IgG HEV positive and 326 patients (52.3%) were IgG HEV negative. Seropositivity increases with increase in age. 51.3% of rural area females were seropositive than 45.3 % in urban population. Low BMI was associated with high seropositivity.
Conclusion: Seroprevalence of hepatitis E in north Indian population in present study was quite high. The result of present study can be used in formulating the guidelines for Hepatitis E vaccination in pregnant females.

QUANTIFYING MATERNAL RISKS OF DENGUE DURING PREGNANCY: A SYSTEMATIC REVIEW AND PROPORTIONAL META-ANALYSIS

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Problem statement: The evidence in dengue-endemic settings is largely derived from observational studies, with substantial variation in study design and the availability of appropriate comparison groups, particularly in resource-limited settings. For that reason, a proportional meta-analysis was selected to enable the quantitative synthesis of single-group data and provide pooled estimates of the frequency of maternal, fetal, and neonatal outcomes among pregnant women with dengue infection, consequently maximizing the available evidence while reflecting the characteristics of the existing literature. This systematic review aims to synthesise the evidence on maternal, fetal, and neonatal outcomes associated with dengue infection during pregnancy. ***Methods***: A comprehensive search was performed using PubMed (MEDLINE), Embase, Web of Science (SciELO), and Global Index Medicus databases from inception to 8 June 2026, without restrictions on publication date or language (PROSPERO number CRD420251124597). Eligible studies were observational in design and reported fetal outcomes in women with dengue infection during pregnancy. Two reviewers independently screened titles and abstracts to determine eligibility and extracted data and assessed the quality of studies. Outcomes were analyzed as dichotomous variables with random-effect models and heterogeneity with I2 statistics. ***Results***: Out of 4,306 studies screened, 54 studies (including 59 publications) met the criteria totaling 125,027 pregnant patients with dengue infection. Proportional meta-analysis estimated a pooled proportion of 4% (95% confidence interval [CI] 2 – 6%, I2=89%, k=47) for maternal mortality, 2% (95% CI 0 – 5%, I2=76%, k=27) for neonatal mortality, 20% (95% CI 12 – 29%, I2=91%, k=21) for preterm birth, 22% (95% CI 9 – 38%, I2=93.1%, k=10) for low birth weight, 20% (95% CI 14 – 27%, I2=76.7%, k=17) for neonatal intensive care unit (NICU) admission and 4% (95% CI 0 – 17%, I2=96.7%, k=9) for congenital malformation. ***Conclusion***: Dengue during pregnancy was associated with substantial risks of adverse maternal, neonatal, and perinatal outcomes, with preterm birth, low birth weight, and NICU admission occurring in approximately one in five pregnancies. Maternal and neonatal mortality and congenital malformations were less frequent but remained clinically important. The high heterogeneity observed across outcomes highlights considerable variability between studies and warrants cautious interpretation of the pooled estimates.

MATERNAL AND PERINATAL OUTCOMES IN PREGNANT WOMEN WITH HEART DISEASE: A CASE-CONTROL STUDY

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***Problem statement*:** Heart disease (HD) is the leading cause of maternal mortality in developed countries, affecting 1-4% of pregnant women. Cardiomyopathies and other HDs are the cause of one in every four pregnancy-related deaths in the United States, above infections, hemorrhage, and hypertensive disorders. Women with HD have a higher risk of maternal and neonatal morbi-mortality. ***Methods*:** In this retrospective unicentric case–control study, women with HD attended between 2010 and 2018 were matched at a 1:2 ratio with controls without HD who gave birth in the same tertiary care hospital during the study period. The matching criteria were parity, date of delivery and singleton or twin pregnancy. ***Results*:** 141 pregnant women with HD were identified, of whom 132 reached 22 weeks of gestation and were matched with 264 healthy controls, for a total of 396 participants and 408 newborns. Most common HDs were congenital HD (53 women), arrhythmia (46), valvular HD (35), and cardiomyopathy (16), having women with more than one coexisting HD. Within women with HD: one third needed cardiovascular (CV) medication during pregnancy, 22,6% presented a CV complication including 19.9% major adverse cardiac event (MACE), with an intensive care admission rate of 5%. Obstetric complications occurred in 24.2% of them, being gestational hypertensive disorders (9.8%) the most frequent. The rate of congenital HD among their newborns was 13.2%. With regard to the comparative analysis: cesarean section rate was 37.1% in the case group vs. 18.2% in the control group, with an odds ratio (OR) of 2.66 (95% CI = 1.66–4.26, p < 0.001). There was also a higher use of general anesthesia, OR 10.73 (95% CI = 2.32–49.75, p = 0.002); longer hospital admission, OR 2.91 (95% CI 1.02–8.35, p = 0.023) and higher rate of low neonatal weight, OR 1.96 (95% CI 1.09–3.52, p = 0.012). Prematurity was higher in the case group, without reaching statistical significance. ***Conclusion*:** HD increases maternal complications during pregnancy and it is associated with higher rates of cesarean section and low birth weight.

INTRAUTERINE TRANSFUSION AS A CRITICAL INTERVENTION IN THE MANAGEMENT OF FETAL ANEMIA

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Fetal anemia is a serious condition with various etiologies including maternal anemia, alloimmunization, infections, and hemoglobinopathies. Among the hemoglobinopathies associated witH fetal anemia, Alpha thalassemia is the most prevalent single gene disorder, with a high prevalence rate of 22.6% in Southeast Asia and 5% in the Philippines. Antepartum diagnosis of fetal anemia is done through Doppler assessment of the fetal Middle Cerebral Artery Peak Systolic Velocity (MCA-PSV), with values ≥1.5 multiples of the median (MoM) indicating moderate to severe anemia, guiding the need for further evaluation or intrauterine intervention. Severe fetal anemia may result in adverse neonatal outcomes, including intrauterine growth restriction, hydrops fetalis, and fetal demise. Hence, if a fetus is deemed at significant risk for severe fetal anemia (MCA-PSV ≥1.5 MoM or hydropic), fetal blood sampling should be performed in preparation for an intrauterine transfusion. Intrauterine transfusion (IUT) is an advanced fetal therapeutic procedure that requires specialized expertise for the management of severe fetal anemia. It is performed with serial surveillance using MCA-PSV Doppler assessment, with the goal of mitigating the sequelae of fetal anemia and optimizing perinatal outcomes. This case presents a Gravida 3 Para 2 (1101) patient with a prior history of hydrops fetalis, who presented at 22 weeks' gestation with moderate maternal anemia with concomitant fetal anemia. Blood transfusion with packed RBCs was done for correction of maternal anemia and intrauterine blood transfusion for fetal anemia. Fetal surveillance was continued until 32 weeks' gestation, at which time, routine ultrasonography revealed early features of hydrops fetalis (fetal ascites). A repeat IUT was planned. However, reduced variability on baseline cardiotocography necessitated an emergency cesarean delivery with neonatal outcome as follows: preterm baby girl, birth weight of 1, 530 grams, APGAR score 4,5,6,7, Ballard score of 36 weeks, small for gestational age, with hydropic feature (fetal ascites), and subsequently demised after the third hour of life. IUT remains a critical therapeutic intervention for the management of fetal anemia, particularly in cases complicated by maternal anemia; however, although it does not guarantee neonatal survival, it offers a meaningful possibility of improved prognosis in selected cases.



LABOR AND DELIVERY

POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME PRESENTING AS ACUTE BILATERAL CORTICAL BLINDNESS IN A PUERPERAL PATIENT WITH ECLAMPSIA: A CASE REPORT

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***Problem statement*:** Posterior reversible encephalopathy syndrome (PRES) is a rare neurological condition characterized by headache, altered mental status, visual disturbances, and seizures, often associated with severe hypertension or eclampsia. This report describes a case of PRES presenting as sudden bilateral cortical blindness in a primigravida with eclampsia. ***Methods*:** We present a case report of a 26-year-old primigravida at 37 weeks and 6 days of gestation presenting to the emergency room with a blood pressure (BP) of 170/130 mmHg, vomiting, headache, and blurred vision. Under suspicion of eclampsia, neuroprophylaxis with intravenous magnesium sulfate and antihypertensive therapy with labetalol were initiated. Following stabilization in coordination with the anesthesiology team, an emergent cesarean section was performed. While in the Post-Anesthesia Care Unit, the patient reported bilateral vision loss, which prompted ophthalmological evaluation, computed tomography (CT), electroencephalography (EEG), and brain magnetic resonance imaging (MRI). ***Results*:** A healthy female neonate weighing 2,796 g was born (Apgar scores: 9/10/10; umbilical artery pH: 7.21). Postpartum, the patient experienced acute bilateral cortical blindness with a normal fundoscopy showing no retinal abnormalities or optic nerve injury. Brain CT showed bilateral symmetric parieto-occipital subcortical hypodensities suggestive of PRES. Levetiracetam 500 mg every 12 hours PO was initiated. EEG confirmed bilateral posterior slowing, indicating parieto-occipital cortical dysfunction. Brain MRI showed signs of PRES and diffuse T1 hyperintensity of the adenohypophysis, with no significant enlargement, leading to suspicion of pituitary hemorrhage; however, hormonal studies were normal during the acute phase and in outpatient follow-up, dismissing the diagnosis. Vision completely and spontaneously recovered within 24 hours. The patient was discharged 8 days postpartum with a readjusted oral antihypertensive regimen of labetalol 50 mg every 12 hours. Outpatient follow-up showed stable ambulatory BP (120/80 mmHg) and persistent proteinuria (1,409 mg/g creatinine). Scheduled multidisciplinary evaluations are still ongoing. ***Conclusion*:** PRES must be suspected in obstetric patients with eclampsia presenting with sudden visual symptoms. Although acute cortical blindness is a severe manifestation, it can fully resolve with timely blood pressure control and seizure prophylaxis. Accompanying pituitary MRI findings necessitate hormonal correlation to rule out hemorrhage.

POSTPARTUM ECLAMPSIA AND REVERSIBLE CEREBRAL VASOCONSTRICTION SYNDROME OVERLAP PRESENTING WITH CORTICAL SUBARACHNOID HEMORRHAGE: A COMPLEX DIAGNOSTIC AND THERAPEUTIC CHALLENGE

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Problem statement: Postpartum eclampsia and Reversible Cerebral Vasoconstriction Syndrome (RCVS) share pathophysiological mechanisms involving endothelial dysfunction and altered cerebrovascular autoregulation. Differentiation between these entities can be challenging, particularly when atypical features such as non-aneurysmal cortical subarachnoid hemorrhage (cSAH) are present. We present a rare case of late postpartum eclampsia overlapping with RCVS and cSAH to highlight the diagnostic approach and multidisciplinary management. ***Methods***: We reviewed the clinical, laboratory, and serial neuroimaging data (non-contrast computed tomography [CT] and CT angiography [CTA]) of a 38-year-old multiparous woman (G4P4; third and fourth pregnancies complicated by fetal growth restriction [FGR]). She underwent labor induction at 38+2 weeks for type 1 FGR (estimated fetal weight 1,855 g, 4th percentile), resulting in an uncomplicated eutocic vaginal delivery of a live female infant (2,430 g, Apgar 10/10) without intrapartum hypertensive or obstetric complications. On postpartum day 13, she presented to the emergency room with two generalized tonic-clonic seizures, a severe thunderclap headache, and acute severe hypertension (171/83 mmHg). ***Results***: Upon emergency presentation, initial laboratory testing revealed marked proteinuria (protein-to-creatinine ratio 4,234 mg/g) with negative urine toxicology, confirming the diagnosis of late postpartum eclampsia. Emergency non-contrast CT identified a left frontal cSAH, while CTA demonstrated focal segmental narrowing of the M2-M3 left middle cerebral artery (MCA) characteristic of RCVS, without evidence of intracranial aneurysms or cerebral venous sinus thrombosis. The patient was admitted to the intensive care unit and subsequently transferred to the stroke unit, receiving intravenous magnesium sulfate, levetiracetam, and oral nimodipine. Follow-up CTA performed 4 days later confirmed complete resolution of MCA vasoconstriction and significant regression of the cSAH. She was discharged neurologically intact with normal blood pressure levels under oral nimodipine therapy. ***Conclusion***: This case highlights the diagnostic overlap and clinical complexity of late postpartum eclampsia, RCVS, and cSAH following labor induction for FGR. Prompt recognition of delayed postpartum neurological symptoms, rapid multimodal neuroimaging, and coordinated multidisciplinary management (obstetrics, neurology, intensive care) are critical to prevent severe maternal morbidity and optimize outcomes.

OBSTETRIC MANAGEMENT IN DIET-CONTROLLED GESTATIONAL DIABETES DESPITE COMPARABLEPERINATAL OUTCOMES

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Problem statement: Gestational diabetes mellitus (GDM) is associated with increased obstetric surveillance and a potentially more active approach to labour management. However, it remains unclear whether these differences in obstetric management are accompanied by measurable differences in perinatal outcomes in women with well-controlled, diet-treated GDM. ***Methods***: This prospective clinical study included 29 multiparous women with singleton term pregnancies who delivered vaginally without epidural analgesia: 14 women with diet-controlled GDM and 15 healthy controls. Maternal demographic and anthropometric characteristics, gestational age, neonatal anthropometry and selected obstetric characteristics were compared between groups. Categorical variables were analysed using the chi-square or Fisher's exact test, as appropriate, with statistical significance set at p<0.05. ***Results***: Maternal age and gestational age at delivery were comparable between the control and GDM groups (median 34 vs 33.5 years, p=0.983; 40 vs 39 weeks, p=0.186). Neonatal birth weight (3620 vs 3675 g, p=0.715) and length (51 vs 50 cm, p=0.331) did not differ significantly between groups. Maternal body weight tended to be higher in women with GDM (86.5 vs 77.0 kg, p=0.172), while blood pressure values were comparable. Despite similar maternal and neonatal characteristics, significant differences were observed in labour management. Oxytocin infusion was used in all women with GDM compared with 60.0% of controls (p=0.017). Induction of labour was also more frequent in the GDM group (85.7% vs 46.7%, p=0.050). Prostaglandin use was comparable between groups (approximately 13–14%, p=1.000), while spontaneous onset of labour was less frequent in women with GDM (21.4% vs 46.7%, p=0.245). ***Conclusion***: In this small cohort of women with diet-controlled GDM, neonatal anthropometric and major maternal clinical characteristics were comparable with healthy controls. Nevertheless, women with GDM were significantly more likely to undergo active labour management, particularly oxytocin augmentation, with a strong trend toward more frequent induction of labour. These findings suggest that GDM may influence obstetric management even when metabolic control is adequate and perinatal outcomes remain comparable. Larger studies are needed to determine whether such differences reflect clinical indications, institutional practice patterns, or the diagnosis of GDM itself.
Disclosure of interest: *The authors declare no conflict of interest.*

METABOLIC PHENOTYPE AND ACTIVE LABOUR MANAGEMENT IN DIET-CONTROLLED GESTATIONALDIABETES WITH COMPARABLE NEONATAL OUTCOMES

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Problem statement: Gestational diabetes mellitus (GDM) is associated with metabolic abnormalities and increased obstetric surveillance. However, it remains unclear whether women with well-controlled, diet-treated GDM demonstrate clinically relevant differences in labour management despite comparable maternal and neonatal characteristics. ***Methods***: A prospective study included 29 multiparous women with singleton term pregnancies and planned vaginal delivery without epidural analgesia. Fourteen women had diet-controlled GDM and 15 served as healthy controls. Maternal metabolic parameters, demographic and anthropometric characteristics, neonatal measurements, and selected obstetric interventions were compared between groups. Categorical variables were analysed using the chi-square or Fisher's exact test, while continuous variables were analysed using appropriate non-parametric tests. Statistical significance was set at p<0.05. ***Results***: Women with GDM demonstrated a distinct metabolic profile, with significantly higher fasting insulin concentrations (median 145.5 vs. 74.8, p=0.026) and HOMA-IR values (3.98 vs. 1.91, p=0.023), together with lower HDL cholesterol (1.5 vs. 1.9, p=0.003). Despite these metabolic differences, maternal age, gestational age at delivery, neonatal birth weight and length, and blood pressure did not differ significantly between groups. Obstetric management was more active in the GDM group: oxytocin infusion was used in all GDM patients compared with 60% of controls (p=0.017), while induction of labour occurred in 85.7% versus 46.7%, respectively (p=0.050). Prostaglandin use was comparable between groups. ***Conclusion***: Diet-controlled GDM was characterized by a significantly less favourable metabolic profile despite comparable maternal and neonatal anthropometric characteristics. This metabolic phenotype was accompanied by more active obstetric management, particularly more frequent oxytocin use and a strong trend toward labour induction. These findings suggest that even well-controlled GDM may influence intrapartum management independently of measurable differences in neonatal size or gestational age. Further studies are needed to determine whether this reflects metabolic risk, obstetric indications, or differences in clinical practice.
Disclosure of interest: *The authors declare no conflict of interest.*

TRANSFER OF DRUGS THROUGH THE FETOPLACENTAL MEMBRANE AND PHARMACOKINETICS OF DRUGS IN PREMEDICATION IN ELECTIVE CAESAREAN SECTIONS

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Aims: The aim of this study was to evaluate the transplacental transfer and pharmacokinetic parameters of drugs administered during premedication for caesarean section, as well as the impact of maternal hypertension and diabetes mellitus on drug distribution and elimination. ***Material and methods***: A total of 75 pregnant women were involved in the research. The patients were divided into three groups: 30 pregnant women with hypertension (group H), 14 pregnant women with diabetes mellitus (group D) and a control group of 31 healthy pregnancies (group N). All subjects were administered the same drugs as part of standard clinical procedure in premedication: a single dose of diazepam by intramuscular injection (10 mg/ml), and single doses of cefuroxime (1,5 mg), ranitidine (50 mg/2 ml) and metoclopramide (10mg/2 ml). Five samples was taken from each mother-infant pair were analyzed. Blood samples were taken from the mother three times: after drug administration, at the moment of extraction of the newborn and after delivery. Newborns blood samples were taken from the umbilical cord vein and artery after delivery. Plasma samples were analyzed by high-performance liquid chromatography (HPLC). ***Results***: In hypertensive pregnant women, cefuroxime showed faster elimination into maternal blood and greater tissue distribution without significantly reducing therapeutic efficacy In diabetics pregnant women, cefuroxime concentrations were higher but the fetal-maternal ratio was lower, suggesting structural and functional placental changes. Metoclopramide concentration was higher in maternal than fetal blood, with transport from fetus towards mother being more dominant, particularly in hypertensive and diabetic groups where metoclopramide tended to retain in fetuses. Hypertension and diabetes increased the transfer of diazepam through the placenta by increasing free fatty acids and steroid hormones and by reducing the binding capacity of carrier protein and the concentration of plasma proteins thus increasing potential danger of adverse effects of diazepam and its metabolites on the fetus and newborn. ***Conclusion***: This study suggests the necessity for more extensive pharmacokinetic research including both healthy and affected pregnant women that would lead to conclusions based on evidence and helpt to develop an individual therapeutic approach to each pregnant woman

EFFICACY OF SINGLE-DOSE CEFAZOLIN WITH INTRANASAL POVIDONE-IODINE VERSUS CEFAZOLIN ALONE FOR PREVENTION OF SURGICAL SITE INFECTION IN CESAREAN SECTION

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Problem statement: Cesarean section is one of the most common surgeries performed globally, now accounting for more than 1 in 5 (21%) of all childbirths. Among the most concerning complications is surgical site infection (SSI), which remains a leading cause of maternal morbidity, prolonged hospitalization, and increased medical costs. Povidone-iodine remains a viable and widely used antiseptic, especially for its role in preoperative decolonization, offering a promising alternative to traditional antibiotic-only prophylaxis. This study aimed to compare the efficacy of single-dose cefazolin with intranasal povidone-iodine versus cefazolin alone in preventing SSI among women undergoing cesarean section and to assess postoperative wound healing using the REEDA scale. ***Methods***: This randomized controlled trial enrolled seventy women scheduled for elective cesarean delivery in a tertiary hospital. Participants were randomly assigned into two groups: the control group received single-dose cefazolin, while the experimental group received single-dose cefazolin plus intranasal povidone-iodine. Wound healing was assessed using the REEDA scale on postoperative days 7 and 30. Patients were followed for 30 days for the occurrence of surgical site infection. ***Results***: Seventy patients were randomized equally into the control group (cefazolin only, n=35) and the experimental group (cefazolin plus intranasal povidone-iodine, n=35). On postoperative day 7, complete wound healing was observed in 88.6% of the experimental group versus 62.9% of the control group, which was statistically significant (p=0.024). By day 30, all patients in both groups achieved complete wound healing. No surgical site infections were recorded in either group during the 30-day follow-up period. ***Conclusion***: Single-dose cefazolin was effective in preventing surgical site infection in cesarean delivery, with no SSI observed in either group. The addition of intranasal povidone-iodine was associated with significantly faster early wound healing as demonstrated by REEDA scale scores on postoperative day 7, although by day 30, complete wound healing was achieved in all patients. These findings suggest a potential benefit of intranasal decolonization on early postoperative recovery, while SSI outcomes were comparable between groups. Further larger multicenter studies are warranted to confirm these findings in higher-risk populations.
Disclosure of interest: *The authors declare no conflict of interest.*

INTRA-CESAREAN MYOMECTOMY, AN EXCEPTIONAL INDICATION TO ALLOW FOR HYSTERORRHAPHY – A CASE REPORT

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Problem statement: Intracesarian myomectomy is a controversial approach with little recommendations, due to the hemorrhagic risk associated with a bigger uterine vascularization during pregnancy. Nevertheless, in carefully selected scenarios, an intracesarian myomectomy might pose a need to allow for adequate execution and conclusion of the cesarian surgery. ***Methods***: Assessment of a case of a woman with a fibroid in the anterior lower uterine segment and a breech positioned fetus, admitted for elective cesarian section in a Portuguese hospital. ***Results***: A 27-year-old previously healthy pregnant woman suveillanced in a primary care setting until 29w1d, was referenced to the hospital due to high risk of pre-eclampsia and a fibroid located in the anterior lower uterine segment. The rest of the pregnancy had no major problems other than the growing fibroid and a fetus in breech presentation at term. She was admitted for an elective cesarian-section at 39w1d due to a breech positioned fetus and an estimated 154mm fibroid located in the anterior lower uterine segment. The cesarian section was conducted under locoregional anesthesia and antibiotic prophylaxis. Due to the location and size of the fibroid, we had to do a corporal transverse uterine incision. The fetal extraction had no complications. An anatomical limitation to properly approximate the uterine incision edges was recognized, with the fibroid in site. A decision was made to perform a myomectomy during the same surgical procedure. The excised fibroid was sent to anatomopathological examination (hysthological exam: regular fibroid). Removal of leiomyoma allowed for adequate exposure of the lower uterine segment and subsequent closure of the hysterotomy. Post-partum hemorrhage prophylaxis was done with oxytocin, and blood loss was estimated at 500mL, without the need for blood transfusion. The need for a cesarian section in the future was explained after the procedure. ***Conclusion***: The location of the fibroid, particularly when situated in the anterior lower uterine segment, can pose a significant technical challenge in the reconstruction of the uterine wall itself. In such scenarios, myomectomy may cease to be an elective procedure and instead play a crucial role in the safe completion of the surgery.
I have no conflicts.

BRIDGING THE KNOWLEDGE-ATTITUDE GAP: A STUDY ON DECISION-MAKING FOR DELIVERY AFTER CESAREAN SECTION IN A PHILIPPINE TERTIARY HOSPITAL AND A ROADMAP FOR A NATIONAL COUNSELING INTERVENTION

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Problem Statement: The escalating global cesarean section (CS) rate has become a major maternal health challenge, as unnecessary repeat cesarean deliveries increase surgical morbidity, healthcare costs, and adverse reproductive outcomes. Although Trial of Labor After Cesarean (TOLAC) is a safe, evidence-based option for appropriately selected women and is recommended by international guidelines, its utilization remains low, particularly in low- and middle-income countries. This gap reflects not only differences in clinical eligibility but also the influence of knowledge, risk perception, and provider counseling on delivery decisions. In the Philippines, evidence on these determinants is limited, restricting the development of context-specific strategies to promote informed shared decision-making. This study evaluated the knowledge, attitudes, and delivery

preferences of women with one previous cesarean section to generate local evidence for improving counseling practices and maternal health policy. ***Methods*****:** A descriptive cross-sectional study was conducted from February to June 2025 among 103 women with one previous cesarean section attending a tertiary government hospital in Caloocan City, Philippines. Participants completed a validated World Health Organization questionnaire assessing knowledge, attitudes, perceived risks and benefits of TOLAC and elective repeat cesarean section (ERCS), provider influence, and preferred mode of delivery. Data were analyzed using Stata version 14. ***Results***: Most respondents recognized the benefits of vaginal birth, including better infant care (77.7%) and faster maternal recovery (72.8%); however, important knowledge gaps remained. Only 16.5% believed vaginal birth after cesarean section (VBAC) had a high likelihood of success, while 53.4% overestimated the risk of uterine rupture. Provider influence was substantial: 36.9% perceived their physician preferred ERCS, and 58.3% identified provider recommendation as the strongest influence on their decision. Overall, 56.3% preferred ERCS because of perceived greater maternal and neonatal safety and fear of labor-related complications. ***Conclusion***: Women with one previous cesarean section demonstrated a significant knowledge–attitude gap regarding TOLAC despite recognizing its benefits. Misconceptions about VBAC safety and strong provider influence contributed to the preference for repeat cesarean delivery. These findings support standardized, evidence-based antenatal counseling to strengthen shared decision-making, optimize appropriate TOLAC utilization, and safely reduce unnecessary repeat cesarean sections in resource-limited settings.

CROSS-SECTIONAL STUDY CORRELATING MATERNAL HBA1C LEVELS TO PREGNANCY OUTCOMES IN A TERTIARY HOSPITAL FROM FEBRUARY TO MARCH 2026

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Introduction: Glycated hemoglobin (HbA1c) levels are the basis for glycemic control in non-pregnant individuals. However, the HbA1c is not fully explored in relation to adverse perinatal outcomes in the local setting.1,2,3 The study aims to assess whether a correlation exists between maternal HbA1c levels and cesarean birth and adverse perinatal outcomes like meconium-stained amniotic fluid and fetal asphyxia in a tertiary hospital setting. ***Methodology***: This prospective cross-sectional study enrolled 232 pregnant patients for glycated hemoglobin (HbA1c) testing prior to delivery. Data analysis will include assessing the association between maternal HbA1c level with pregnancy outcome including mode of delivery, characteristics of amniotic fluid and presence of fetal asphyxia. ***Result***: A total of 232 pregnant patients were included, with a mean maternal age of 26.15 ± 5.36 years and a mean HbA1c of 5.59 ± 0.80%. Higher HbA1c levels were associated with increased rates of meconium-stained amniotic fluid and neonatal asphyxia, with asphyxia rising from 4.1% to 29.3% across categories ($p < 0.001$). ROC analysis demonstrated acceptable predictive performance of HbA1c for adverse outcomes, with AUC values ranging from 0.74 to 0.79 and optimal cut-off values between 5.85% and 6.10%. ***Conclusion***: Higher maternal HbA1c levels prior to delivery were significantly associated with increased risk of cesarean delivery, meconium-stained amniotic fluid, and neonatal asphyxia. Notably, HbA1c demonstrated acceptable predictive ability for these outcomes, with clinically relevant optimal values below traditional diabetes thresholds. These findings support the use of HbA1c as a supplementary tool for risk stratification in obstetric care.

KEY PELVIC BONY INDICES TO CAPTURE INTERINDIVIDUAL VARIABILITY: A SCOPING REVIEW BASED ON MULTIMODAL IMAGING

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Problem statement: Maternal pelvic bone structure is a key determinant of fetal passage during labor, yet available pelvic measurements lack established reproducibility and discriminant capacity. Biomechanical simulation models of childbirth require virtual cohorts representing obstetric pelvic diversity, and their clinical applicability depends on reliable measurements to assign individual patients to representative morphological groups, a need unmet by existing pelvimetry literature. This scoping review aimed to identify and synthesize pelvic bone biometric indices from two-dimensional (2D) and three-dimensional (3D) imaging in women of reproductive age, and to determine which indices accurately and reproducibly characterize inter-individual pelvic variability. ***Methods***: Following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, two databases were searched, yielding 3,294 records, 43 studies met inclusion criteria after title/abstract and full-text screening. Two independent reviewers extracted data on biometric definitions, measurement methods, and reproducibility, with disagreements resolved by a third author. Only linear and angular measurements were retained, and coefficients of variation (CV) were calculated for each biometric within each imaging modality. ***Results***: Thirty-nine biometrics were identified and categorized by anatomical region into five groups. Reproducibility data, available in 12/43 studies, showed excellent agreement (intraclass correlation coefficient [ICC] ≥0.90) for major obstetric indices among experienced operators, but poorer agreement for outlet diameters (junior observers) and pubic arch angle (ultrasound). CV was highly heterogeneous across biometrics and modalities; several indices showed elevated CV, but insufficient reproducibility data precluded distinguishing true anatomical variability from measurement variability for these indices. Spinopelvic parameters showed good reproducibility despite higher CV. Nomenclature heterogeneity limited quantitative synthesis; a harmonized nomenclature across studies is proposed as part of this review. ***Conclusion***: This review could not determine which biometric indices accurately and reproducibly capture inter-individual pelvic variability. For biometrics with elevated CV, the origin of this variability, whether anatomical or measurement-related, could not be established, a gap attributable to insufficient original reproducibility data rather than to poor reproducibility of major osseous indices themselves. Standardized definitions and large-scale prospective studies incorporating the definition of virtual cohorts of pelvic anatomies are now required to enable individualized, simulation-informed approaches to childbirth.
Disclosure of interest*: None declared.*

EFFECTS OF SEXUAL COUNSELLING ON SEXUAL FUNCTION IN POSTPARTUM WOMEN: A LITERATURE REVIEW

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Problem statement: Although physical, hormonal, and psychosocial changes during the postpartum period may negatively affect women's sexual function, sexual health is not adequately addressed in routine care. This review examined the effects of structured sexual counseling on sexual function in postpartum women. ***Methods***: PubMed, Scopus, Web of Science, and Google Scholar were searched using the terms "postpartum women," "sexual counseling," and "sexual function." English-language studies that evaluated the effects of structured sexual counseling on postpartum sexual function using a validated sexual function scale were included. Six studies that met the inclusion criteria were reviewed. ***Results***: A quasi-experimental study reported that women who received postpartum sexual counseling based on the Information–Motivation–Behavioral Skills model had significantly higher sexual function and sexual satisfaction scores at two and four months than those in the control group. In another quasi-experimental study involving 104 breastfeeding mothers who experienced sexual desire disorder within 2–6 months after childbirth, women who received sexual health counseling based on the REDI model had significantly higher total sexual function scores and sexual function subscale scores—except for orgasm—four weeks after counseling than those in the control group. Randomized controlled trials also demonstrated that sexual counseling interventions based on different models could improve postpartum sexual function. Sexual function scores four weeks after counseling were significantly higher among 90 breastfeeding women who received PLISSIT-based counseling than among controls. Similarly, women who received EX-PLISSIT-based counseling had significantly higher sexual function scores at four and eight weeks after counseling than those in the control group. Another study reported significant improvements in sexual desire, lubrication,

orgasm, communication, satisfaction, avoidance, touching, and vaginismus scores among postpartum women who received EX-PLISSIT-based sexual counseling compared with controls. Finally, postpartum women and their partners who received couple-based remote sexual counseling had significantly higher sexual function scores immediately after counseling and at the first- and second-month follow-ups than those in the control group. ***Conclusion***: Current evidence suggests that structured sexual counseling may improve sexual function and satisfaction among postpartum women. However, because of differences in intervention content, delivery methods, and outcome measures, larger, high-quality randomized controlled trials are needed.

MEDICAL COMPLICATIONS IN PREGNANCY PRETERM DELIVERY PREVENTION AND TREATMENT

BILATERAL TUBO-OVARIAN ABSCESS IN PREGNANCY: CONSERVATIVE MANAGEMENT OR SURGERY WHEN IMAGING IS INCONCLUSIVE?

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Problem statement: Tubo-ovarian abscess (TOA) is rare during pregnancy and poses a challenging diagnostic and therapeutic dilemma. Clinical presentation may be nonspecific, while imaging is limited by pregnancy-related anatomical changes and restrictions on contrast administration. The decision between conservative management and surgical intervention must balance maternal risks against potential pregnancy complications. ***Methods***: We report a case of a pregnant woman admitted at 17 weeks of gestation with persistent left-sided abdominal pain and moderately elevated inflammatory markers. Ultrasound demonstrated bilateral complex multicystic adnexal masses measuring 74 × 38 mm on the left and 42 × 39 mm on the right. C-reactive protein remained elevated at 39–46 mg/L. Magnetic resonance imaging (MRI) without contrast showed bilateral thick-walled cystic ovarian lesions without definite signs of torsion or malignant papillary projections. Serum cancer antigen 125 (CA-125) was elevated to 283 U/mL. Due to persistent symptoms and uncertain adnexal pathology, surgical exploration was performed. ***Results***: Laparotomy revealed a left TOA densely adherent to the sigmoid colon, containing abundant purulent material. The right tube and ovary were also involved in inflammatory adhesions, with purulent material identified during adhesiolysis. Left adnexectomy, adhesiolysis, drainage, and preservation of the right ovary were performed. Despite the intraoperative findings, aerobic and anaerobic cultures were negative. Histopathological examination confirmed TOA with extensive neutrophilic inflammation and necrotic abscess formation. Following surgery and antibiotic therapy, the pregnancy continued successfully. The patient delivered vaginally at 39 weeks of gestation a healthy neonate weighing 2800 g. ***Conclusion***: TOA should be considered in pregnant patients presenting with persistent abdominal pain, inflammatory markers, and complex adnexal masses even when MRI findings are inconclusive and microbiological cultures are negative. When conservative assessment fails to establish the diagnosis, timely surgical intervention can provide definitive diagnosis and source control while preserving the pregnancy and achieving a favorable perinatal outcome.
Disclosure of interest: *The authors declare no conflicts of interest.*

ARE BELIEFS ABOUT PAIN IMPORTANT? BELIEFS ABOUT PAIN AS A DETERMINANT OF SELF-EFFICACY FOR VAGINAL BIRTH AMONG PREGNANT WOMEN: A CROSS-SECTIONAL STUDY

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This study was conducted to determine the effect of pregnant women's beliefs about pain on their perceived self-efficacy regarding vaginal birth, and to assess the extent to which these variables predict self-efficacy.This cross-sectional and descriptive study was conducted with 370 pregnant women who attended the obstetrics and gynaecology outpatient clinic of a city hospital between February and December 2025. Data were collected using the Demographic Information Form, the Pain Beliefs Scale (PBS) and the Vaginal Birth Self-Efficacy Scale (VBSS). Descriptive statistics, Pearson correlation analysis and multiple linear regression analysis were used in the analysis of the data. The mean total AIO score for pregnant women was found to be 4.13±0.69, and the mean VDÖYÖ score was 56.97±22.57. Correlation analysis revealed a significant negative relationship ($r=-0.238$; $p<0.01$) between vaginal birth self-efficacy and belief in organic pain, and a significant positive relationship ($r=0.29$; $p<0.01$) with belief in psychological pain. According to the results of the regression analysis, it was determined that belief in organic pain significantly and negatively predicted vaginal birth self-efficacy ($\beta = -0.260$; $p < 0.001$), whilst belief in psychological pain was found to have no predictive effect ($p = 0.246$). The model explains 6% of the total variance in birth self-efficacy. As pregnant women's perception of pain as biological damage and an organic threat increases, their sense of self-efficacy regarding vaginal birth decreases. In light of these findings, it is recommended that antenatal education focus on the neurophysiological and functional aspects of pain, and that evidence-based cognitive interventions designed to transform women's organic beliefs about pain be integrated into care pathways.

HYPERTENSIVE DISORDERS OF PREGNANCY PREDISPOSE SMALL VULNERABLE NEWBORNS: A CHINA BIRTH COHORT STUDY

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Background: Small vulnerable newborns (SVN) remain a major cause of global perinatal morbidity and mortality. Hypertensive disorders of pregnancy (HDP) are closely associated with adverse pregnancy outcomes; however, the impact of different HDP subtypes on the risk of SVN and their heterogeneity across different populations remain unclear. Therefore, a comprehensive assessment integrating HDP subtype analysis, subgroup analyses, and stratification by birth outcomes is needed to elucidate the contribution of HDP to SVN development. ***Methods***: We used the China Birth Cohort Study (CBCS), which included 334,924 participants enrolled between February 2018 and December 2022 in mainland China, to develop a multivariable logistic regression model to examine the relationship between maternal blood pressure in the second and third trimesters, four HDP subtypes, and SVN and its components. ***Results***: Elevated systolic and diastolic blood pressure levels during mid-to-late pregnancy are significantly associated with the risk of SGA in newborns. Compared to normotensive pregnancies, HDP and their subtypes consistently correlate with increased preterm-SGA risk, with preeclampsia showing particularly strong associations. The strongest associations were observed for preterm-SGA. Preeclampsia/eclampsia and chronic hypertension with superimposed preeclampsia were associated with higher odds of preterm-SGA, with adjusted ORs (95% CIs) of 24.04 (20.25, 28.53) and 17.78 (11.58, 27.29), respectively. Subgroup analyses indicate these associations are more pronounced among older mothers. ***Conclusion***: HDP and the subtypes predispose to SVN, particularly in older mothers. These findings underscore the importance of monitoring blood pressure during pregnancy and implementing targeted screening to reduce the risk of SVN.

CLINICAL SIGNIFICANCE OF ATYPICAL AMNIOTIC FLUID EMBOLISM

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Objective: The aim of this research is to evaluate the characteristics of pregnancies affected by atypical amniotic fluid embolism (AFE) and the effects of hysterectomy on the clinical outcomes. ***Study Design***: This is a retrospective study of eight cases between Jan. 1995 and Dec. 2020 at Ajou University Hospital. Utilizing a thorough review of medical records, eight cases atypical AFE identified by an isolated coagulopathy as initial presentation and pathologically proven were enrolled. We investigated clinical characteristics of eight cases. The presence of

emboli in pelvic vessels of all the cases were confirmed by histological examination of hysterectomy specimens. ***Results***: Of the eight pregnancies, five cases (62.5%) were multiparous; seven cases (87.5%) were delivered vaginally. In all of the cases, vaginal bleeding, occurred within 90 minutes of delivery as the initial presenting symptom in spite of firm uterine contraction. Collectively, all cases presented coagulopathy with prolonged prothrombin time (PT), partial thromboplastic time (PTT), and decreased platelet counts. All the patients were treated initially with blood transfusions and uterotonic agents, but ultimately undergone emergent hysterectomy because of uncontrolled hemorrhage. The patients fully recovered after hysterectomy and all infants survived without any evidence of neurological sequelae. Upon histologic review, six cases (75%), demonstrated gross findings of traumatic lesions on the uterus, which when evaluated further, all revealed numerous microscopic emboli including fetal squames in the vessels surrounding the traumatic site. ***Conclusion***: In eight cases of atypical AFE treated with hysterectomy, patient showed improved maternal and perinatal outcomes, as the probable source of amniotic fluid emboli had been removed.

EARLY PRENATAL DIAGNOSIS OF COMPLICATED GASTROSCHISIS CASE REPORT

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Gastroschisis is a congenital anomaly characterized by a hernia of abdominal contents over a defect in the anterior abdominal wall. Gastroschisis can manifest as simple or complex. Prenatal diagnosis is achieved in over 90% of cases of gastroschisis. Ultrasound serves as the primary screening tool for the diagnosis of gastroschisis. ***Case report***: Gastroschisis was detected in a 34-year-old woman during her first spontaneous pregnancy at a routine ultrasound examination in the 15th week of gestation. Previous ultrasound scans were within normal limits. Ultrasound performed at 15 weeks of pregnancy revealed a defect in the abdominal wall of the fetus, on the right side of the umbilical cord. No membrane covering the defect was seen. Loops of the intestine were seen floating freely in the amniotic fluid, confirming the diagnosis of gastroschisis. At 20 weeks, both the bladder and uterus were seen in the amniotic fluid. The fetus showed normal growth parameters corresponding to gestational age. The examination was performed by planned cesarean section at 38 weeks of gestation. She was also told that although surgical repair was possible, there was a significant risk of morbidity and prolonged hospital stay. The obstetrician gave her two options, either continuing the pregnancy with postnatal surgery or terminating the pregnancy. ***Conclusion***: Timely diagnosis through prenatal ultrasound is imperative for effective management and planning. This case illustrates the critical role of comprehensive prenatal care in managing complex fetal anomalies and providing patients with the necessary information to make informed decisions about pregnancy.

Keywords: *Complex gastroschisis, prenatal diagnosis, ultrasound, herniation*
Financial or Other Competing Interests None.

FOCAL NECROSIS OF THE UTERUS AS A RESULT OF B-LINCH COMPRESSION SUTURE CASE REPORT

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Introduction: Uterine atony is the main cause of postpartum bleeding. One of the treatment modalities is uterine compression sutures The B-Linch suture technique for uterine compression was described in 1997. It has a success rate of 91.7%. It is associated with short-term and long-term complications, such as occlusion of the uterine cavity, necrosis, infection and synechiae. ***Case report***: A 41-year-old pregnant woman in her third pregnancy,she was admitted for delivery at 38.3 weeks. In her medical history, she states that pre-hood births were performed vaginally at term. She had three abortions. The pregnancy was well controlled. She was referred for an emergency caesarean section due to stasis in the dilation phase and impending fetal asphyxia. She developed heavy bleeding during the operation. Uterotonics, including M15, were administered. After the cesarean section, the bleeding did not stop, so a relapaparatomy was performed and hemostatic stitches were placed according to B-Lynch. She received seven units of blood intraoperatively. She was treated with antibiotic and anticoagulant therapy. The postoperative course was complicated by the subfebrile condition and the increase in CRP. Abdominal ECHO, X-ray of the heart and lungs, native X-ray of the abdomen, CT of the abdomen and small pelvis, MRI examination of the abdomen and small pelvis were performed. Focal necrosis of the uterus was observed on MRI of the abdomen and small carcass. A hysterectomy with adnexal conservation was performed. She received 7 doses of blood suboperatively. She was discharged 14 days after hysterectony in good general condition with the baby. ***Discussion***: B-Lynch suture is part of the standard protocol for stopping postpartum bleeding. Uterine wall necrosis is a rare but life-threatening complication of B-Lynch compression suture. Some authors suggest that complications associated with compression sutures, including necrosis and infections, occur in about 5-7%. In our case report, we have a patient who developed focal uterine necrosis. ***Conclusion***: Uterine compressive sutures are a well established measure for control of haemorrhage following atonic postpartum haemorrhage, when medical and nonmedical interventions fail. Uterine necrosis is a rare complication.

Keywords: postpartum hemorrhage, B-lynch suture, uterine necrosis
Financial or Other Competing Interests None.

MULTIFETAL PREGNANCY

PREGNANCY OUTCOMES IN TWIN GESTATIONS COMPLICATED BY GESTATIONAL DIABETES MELLITUS: A PROSPECTIVE COHORT STUDY FROM SOUTH INDIA

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Problem statement: The rising incidence of twin pregnancies and gestational diabetes mellitus (GDM) may synergistically increase the risk of adverse maternal and perinatal outcomes. However, evidence regarding outcomes in twin pregnancies complicated by GDM remains limited. This study aimed to compare pregnancy outcomes between twin pregnancies with and without GDM and to identify factors associated with adverse outcomes. ***Methods***: This prospective cohort study was conducted at a tertiary care center in South India from August 2023 to June 2025. 348 women aged >18 years with twin pregnancies were enrolled. Women with pre-existing diabetes mellitus and on steroids were excluded. Participants were categorized into two groups: twins with GDM (n=116) and twins without GDM (n=232). Maternal demographic characteristics, clinical profiles, and pregnancy outcomes were recorded. Categorical variables were compared using the Chi-square test and continuous variables using the Student's t-test. The strength of association between risk factors and adverse outcomes was reported as relative risk (RR) with a 95% confidence interval and adjusted RR (aRR) was calculated after adjusting for potential confounders. p-value. ***Results***: Overall, 30% had assisted conception, 78.7% were Dichorionic twins, 61% were primigravida, 45.7% were overweight /obese and 13.7% had hypothyroidism. Among twins with GDM, 99% were Early GDM and 28.4% required pharmacotherapy. Factors, namely age, type of conception, parity, and type of twins were significantly associated with adverse pregnancy outcomes. Twins with GDM relative to without GDM had significantly higher mean maternal age (29.03 vs 27.21 years, p=0.002) ;2.05 times higher risk of preeclampsia (95%CI 1.04-4.04, p=0.037) after adjusting for age, type of conception, parity; 3.46 times higher risk of genitourinary infections (95% CI 1.05-11.37, p=0.041) after adjusting for type of conception and 1.25 higher risk of preterm birth (95% CI 1.06-1.48, p=0.017) after adjusting for age, type of conception and type of twins. ***Conclusion***: Twin pregnancies complicated by GDM are associated with increased maternal and perinatal morbidity compared to twins without GDM. These findings highlight the need for closer surveillance and tailored management strategies in this high-risk group.

Disclosure of interest: *Nil*

ASSOCIATION BETWEEN PREGNANCY-ASSOCIATED PLASMA PROTEIN-A AND CROWN-RUMP LENGTH IN TWIN PREGNANCIES DURING FIRST-TRIMESTER SCREENING

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Problem statement: Crown-rump length (CRL) is the principal biometric measure used to date pregnancy and assess early fetal growth. regnancy-associated plasma protein-A (PAPP-A) is routinely measured during first-trimester screening, but its relationship with early fetal size in twin pregnancies remains unclear. This study investigated the association between maternal PAPP-A levels and fetal CRL in twin pregnancies. ***Methods***: This cohort study included consecutive twin pregnancies undergoing first-trimester screening at two fetal medicine centres in Central Greece over a five-year period. A prospectively maintained database included demographic characteristics, medical history, CRL measurements and PAPP-A levels. All participants provided informed consent, and de-identified data were analysed using R statistical software. Associations were assessed using correlation and multivariable analyses. ***Results***: A total of 510 twin pregnancies were included. PAPP-A levels correlated positively with the CRL of the larger twin ($r = 0.20$, $p < 0.001$). No significant association was observed between PAPP-A levels and CRL discordance greater than 10% ($p = 0.90$). In multivariable analysis, higher PAPP-A levels remained independently associated with greater first-trimester CRL. ***Conclusion***: Higher PAPP-A levels were associated with greater CRL of the larger twin, but not with CRL discordance greater than 10%. Larger prospective studies are required to confirm these findings and clarify their clinical relevance.

Disclosure of interest: The authors declare no conflicts of interest.

WHEN TWINS DIVERGE: DOES BIRTHWEIGHT DISCORDANCE IDENTIFY A HIGH-RISK PREGNANCY OR THE HIGH-RISK TWIN?

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Problem statement: Intertwin growth discordance ≥20% is considered a marker of increased risk, yet discordance alone does not establish selective fetal growth restriction. Its clinical significance may also differ by chorionicity. We investigated whether birthweight discordance identified greater morbidity for the pregnancy as a whole or predominantly the more vulnerable twin. ***Methods***: This retrospective cohort included 54 twin pregnancies delivered at a Portuguese tertiary hospital between January 2025 and June 2026. Birthweight discordance was analysed categorically as <10%, 10–19.9% and ≥20%; ≥25% was examined in sensitivity analysis. The neonatal composite comprised five-minute Apgar score <7, resuscitation or neonatal intensive care unit admission. Exact McNemar tests assessed within-pair differences. Firth penalised logistic regression adjusted for chorionicity and maternal age; a secondary model additionally included gestational age at birth. ***Results***: 54 pregnancies comprising 108 newborns were included: 20 monochorionic diamniotic (MCDA) and 34 dichorionic diamniotic (DCDA). Median discordance was 8.7% (interquartile range 4.7–16.2%); 11 pregnancies (20.4%) had discordance ≥20%. The composite affected at least one twin in 45.5% of pregnancies with discordance ≥20% and 50.0% below 20% (p=1.000). Discordance was not independently associated with the composite after adjustment for chorionicity and maternal age (aOR 1.17 per 10-percentage-point increase; 95% CI 2.06). After additionally accounting for gestational age, the estimate remained imprecise (aOR 1.75; 95% CI 0.88–3.48). At discordance ≥20%, the composite occurred in four smaller versus two larger twins (p=0.625), and neonatal intensive care admission in four versus one (p=0.250). Discordance was not associated with preterm birth (aOR 0.92; 95% CI 0.52–1.61), whereas monochorionicity was (AOR 4.23; 95% CI 1.09–16.40). ***Conclusion***: Across MCDA and DCDA pregnancies, birthweight discordance was not independently associated with overall neonatal morbidity or prematurity. Above 20%, adverse outcomes numerically concentrated in the smaller twin, but the sample lacked precision to confirm a within-pair effect. Chorionicity and gestational age were more informative than discordance alone. Without antenatal growth and Doppler data, asymmetry cannot be equated with selective fetal growth restriction. The 20% threshold should prompt closer assessment—not define prognosis or management in isolation.

Disclosure of interest: *The authors declare no conflicts of interest.*

A CASE STUDY ON SELECTIVE FETAL GROWTH RESTRICTION: DIAGNOSIS, MANAGEMENT, AND OUTCOMES

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Monochorionic twin pregnancies carry increased perinatal risk due to shared placental circulation, which predisposes to complications such as selective fetal growth restriction (sFGR). Early recognition and individualized management are essential to optimize maternal and neonatal outcomes. This is a case of a 24-year-old Gravida 2 Para 0 (0010) woman who presented with a monochorionic twin pregnancy complicated by maternal anemia. At 22 weeks and 6 days of gestation, ultrasound assessment indicated no evidence of growth discordancy. However, at 30 weeks and 6 days age of gestation, ultrasound revealed a sonographic estimated fetal weight of Twin B at 623 grams (< 3rd percentile for gestational age) and a weight discordancy of 33%. A Doppler velocimetry assessment, including middle cerebral artery peak systolic velocity (MCA-PSV), was conducted, and normal values were observed in both twins. Despite recommendations for hospitalization for close fetal surveillance, the patient initially opted for outpatient management. At 35 weeks, she presented with recurrent hypogastric pain and was admitted for preterm labor. Emergency low transverse cesarean section was performed, resulting in the delivery of Twin A (2,365 grams, appropriate for gestational age) and Twin B (1,265 grams, small for gestational age), both with favorable APGAR scores. Maternal and neonatal laboratory findings were consistent with microcytic anemia and compensatory hematologic changes. This case highlights the challenges of managing sFGR in monochorionic twins, emphasizing the importance of close monitoring, patient-centered decision-making, and timely delivery for successful perinatal outcomes. Despite limitations in antenatal surveillance, individualized management facilitated favorable outcomes for both neonates. Monochorionic twin pregnancies complicated by sFGR require multidisciplinary care and vigilant monitoring. Early recognition, appropriate intervention, and shared decision-making are crucial for optimizing maternal and neonatal outcomes.



WHEN GENDER AND GENETICS DIVERGE: A CASE OF ANDROGEN INSENSIVITY SYNDROME IN ADOLESCENCE

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Background: Complete Androgen Insensitivity Syndrome (CAIS) is a rare X-linked disorder of sex development resulting from mutations in the androgen receptor gene, leading to impaired cellular response to androgens in individuals with a 46,XY karyotype. Affected individuals typically present with a female phenotype, normal breast development, sparse pubic or axillary hair, primary amenorrhea, and absence of Müllerian structures. The estimated prevalence ranges from 1 in 20,000 to 1 in 100,000 live births. Early recognition is critical to ensure appropriate diagnostic evaluation, reduce malignancy risk and multidisciplinary management. ***Aim***: To describe the clinical presentation, diagnostic work-up, and multidisciplinary management of an adolescent with Complete Androgen Insensitivity Syndrome presenting with primary amenorrhea. ***Case***: An 18-year-old phenotypically female presented with primary amenorrhea and bilateral inguinal and labial masses. Physical examination demonstrated normal female external genitalia, Tanner stage V breast development, sparse axillary hair, and a short blind-ending vaginal pouch without a visible cervix. Pelvic ultrasonography and magnetic resonance imaging revealed absence of the uterus and ovaries, with bilateral inguinolabial gonadal structures. Hormonal evaluation showed elevated testosterone and gonadotropin levels. Cytogenetic analysis confirmed a 46,XY karyotype, establishing the diagnosis of CAIS. ***Results***: The patient underwent bilateral gonadectomy to mitigate the risk of malignant transformation associated with undescended testes. Histopathology confirmed cryptorchid testicular tissue. Postoperatively, estrogen replacement therapy was initiated, and the patient received genetic counseling and psychiatric support as part of a comprehensive multidisciplinary care plan. ***Discussion***: CAIS should be strongly considered in phenotypically female adolescents presenting with primary amenorrhea and absent Müllerian structures. Early diagnosis, timely gonadectomy, and coordinated multidisciplinary management are essential to optimize long-term endocrine, reproductive, and psychosocial outcomes.

UNVEILING A HIDDEN ANOMALY: A CASE OF CONCOMITANT TRANSVERSE VAGINAL SEPTUM AND IMPERFORATE HYMEN

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Imperforate hymen and transverse vaginal septum are rare abnormalities of the female genital tract. Their simultaneous occurrence is extremely rare. This case involves a 13-year-old nulligravid Filipino who presented with recurrent amenorrhea, abdominal pain, and enlargement after two prior hymenectomies. Intraoperative findings revealed a low transverse vaginal septum, likely partial initially, which fibrosed into complete obstruction due to repeated surgeries. Vaginal pull-through with drainage of 2 liters of hematocolpos resolved symptoms. This highlights diagnostic challenges and iatrogenic risks. Surgical management aims at patency, emphasizing thorough evaluation to prevent recurrence.

OVARIAN TERATOMA ASSOCIATED ANTI-N-METHYL-D-ASPARTATE ENCEPHALITIS IN A FILIPINO NULLIGRAVID

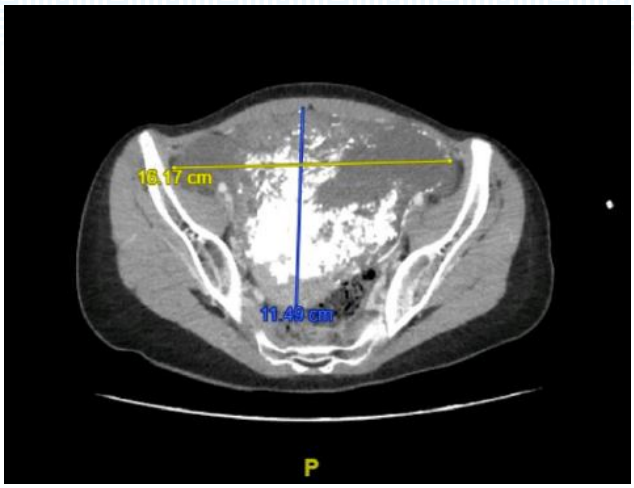
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Anti-N-methyl-D-aspartate receptor (anti-NMDAr) encephalitis is a rare but potentially devastating autoimmune neurologic disorder that stems from a seemingly benign pathology. Psychiatric manifestations frequently predominate during the early stages of disease, leading to initial misdiagnosis as a primary psychiatric disorder and delaying definitive treatment. We report a fatal case of anti-NMDAr encephalitis associated with ovarian mature cystic teratoma in a 34-year-old Filipino nulligravid. The patient initially presented with behavioral changes following the death of a relative, accompanied by insomnia, irritability, memory impairment, and progressive disorientation. She was initially diagnosed with brief psychotic disorder; however, her condition rapidly deteriorated with development of catatonia, rigidity, autonomic instability, tachycardia, hypotension, and altered consciousness. Due to progressive neurologic decline, further evaluation was pursued. Electroencephalography demonstrated diffuse slowing suggestive of encephalitis, while cerebrospinal fluid analysis revealed elevated protein levels. Serum anti-NMDAr antibody testing was positive, confirming autoimmune encephalitis. Computed tomography of the abdomen demonstrated a left ovarian dermoid cyst. The patient underwent laparoscopic left salpingo-oophorectomy after imaging and serologic findings supported the diagnosis of anti-NMDAr encephalitis associated with ovarian teratoma. Histopathologic examination confirmed a mature cystic teratoma with focal endometriosis. Despite corticosteroid therapy, surgical intervention, and intensive care support, the patient developed persistent autonomic dysfunction, respiratory compromise, and pulmonary embolism. She subsequently succumbed to complications of the disease. This case highlights the importance of considering anti-NMDAr encephalitis in young women presenting with acute psychiatric symptoms accompanied by neurologic or autonomic abnormalities. Timely diagnosis, early immunotherapy, and prompt tumor resection remain critical to optimizing outcomes. Increased awareness among psychiatrists, neurologists, internists, and gynecologists is necessary, particularly in resource-limited settings where delays in diagnosis and restricted access to comprehensive treatment may contribute to poor clinical outcomes.

GIANT OVARIAN TERATOMA PRESENTING AS ACUTE ABDOMINAL PAIN AND HYPOVOLEMIC SHOCK IN AN ADOLESCENT: A CASE REPORT

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Problem statement: Ovarian teratomas are common germ cell tumors in the pediatric and adolescent population, typically remaining asymptomatic until reaching a large size. Acute presentation with hemodynamic instability is rare and may mimic other causes of acute abdomen. We report a case of a giant ovarian teratoma presenting with syncope, hypovolemic shock, marked abdominal distension and a firm, poorly mobile abdominal mass in a 15-year-old girl. ***Methods***: Case report of a 15-year-old adolescent with no relevant medical history who was admitted to the emergency department with acute abdominal pain and transient loss of consciousness. On arrival, she showed marked pallor, hypotension, tachycardia, and significant abdominal distension. Physical examination revealed a large, hard, poorly mobile abdominal mass. Laboratory tests, abdominopelvic computed tomography (CT), and transrectal ultrasound were performed, together with gynecology and general surgery consultations. ***Results***: Blood tests showed no significant anemia and normal renal and hepatic function, with respiratory alkalosis and mildly elevated lactate on blood gas analysis. Abdominopelvic CT revealed a large solid pelvic mass (11.2 × 13.3 × 12.8 cm) with extensive calcifications, causing posterior uterine displacement and subtotal sigmoid collapse, without infiltrative features. Transrectal ultrasound showed a heterogeneous mass located between the bladder and uterus, apparently not attached to gynecological structures. Following fluid resuscitation and analgesia, the patient achieved hemodynamic stabilization, allowing transfer to a pediatric referral center, where imaging findings were considered compatible with an ovarian teratoma. Scheduled surgery consisted of diagnostic laparoscopy followed by laparotomy and excision of a right ovarian mass, macroscopically consistent with a teratoma, with a weight of 790gr. No intraoperative complications occurred, and postoperative recovery was uneventful. ***Conclusion***: Giant ovarian teratoma should be considered in adolescent females presenting with acute abdominal pain and marked abdominal distension. A stony-hard, poorly mobile abdominal mass may reflect the presence of a large calcified tumor and should prompt early imaging. A multidisciplinary approach involving emergency medicine, gynecology, surgery and pediatric oncology is essential for timely diagnosis and appropriate surgical management.
Disclosure of interest: *None.*



VAGINAL IMPLANTATION OF RETAINED PRODUCTS OF CONCEPTION PRESENTING ASMASSIVE VAGINAL HEMORRHAGE AFTER MEDICAL ABORTION

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Problem statement: Vaginal bleeding following medical abortion is usually related to retained products of conception or other intrauterine causes. Vaginal implantation of chorionic tissue is extremely rare and may mimic a vaginal neoplasm. We present a case of massive vaginal hemorrhage caused by chorionic villi within a necrotic vaginal mass after medical abortion. ***Methods***: A 42-year-old woman with a history of medical abortion on 30 January 2026 first attended the emergency department on 20 March 2026 with vaginal bleeding. At that time, a previously undiagnosed vaginal lesion was identified and biopsied. Transvaginal ultrasound demonstrated a normal uterus and a linear endometrium, with no evidence of retained products of conception. Six days later, on 26 March 2026, she re-attended the emergency department with sudden-onset, severe vaginal bleeding. On examination, approximately 1.5 L of blood loss was estimated, with active bleeding from a necrotic vaginal lesion. Vaginal packing, intravenous tranexamic acid, and fluid resuscitation were initiated, followed by urgent examination under general anaesthesia. ***Results***: A 2-cm necrotic mass was identified in the right vaginal wall, approximately 2 cm from the introitus, with pulsatile bleeding. The lesion was well demarcated from healthy vaginal mucosa and could be bluntly dissected and completely excised. Haemostasia was achieved with cross-stitches and vaginal repair. Initial biopsy was reported as compatible with Gartner duct remnants with haemorrhagic changes. Definitive histopathological examination of the excised specimen demonstrated blood clot containing immature chorionic villi, consistent with retained products of conception. The absence of intrauterine abnormalities on ultrasound supported a vaginal location of the chorionic tissue. ***Conclusion***: Vaginal implantation of chorionic tissue should be considered in the differential diagnosis of unexplained vaginal bleeding or a vaginal mass following medical abortion. Histological examination is essential for diagnosis. In cases of severe haemorrhage, prompt surgical excision can provide definitive haemostasis and diagnosis. In the attached pathology image, chorionic villous tissue can be seen surrounded by normal vaginal mucosa, supporting the diagnosis of implanted chorionic tissue.

Disclosure of interest: *The authors declare no conflict of interest*



Vaginal mass: macroscopic image + pathology of the chorionic villi

ABNORMAL UTERINE BLEEDING: A MULTIDISCIPLINARY DIAGNOSTIC SUCCESS-CASE OF ENDOMETRIOD ADENOCARCINOMA WITH LYNCH SYNDROME DIAGNOSED WHILE INVESTIGATING CHRONIC ANAEMIA

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Background: Abnormal uterine bleeding (AUB) in perimenopausal women is frequently attributed to benign causes. However, persistent symptoms may occasionally herald underlying malignancy or hereditary cancer syndromes. We present a case where investigation of chronic iron deficiency anaemia (IDA) led to the diagnosis of Lynch syndrome and subsequent detection of occult endometrial carcinoma. ***Case Presentation***: A 50-year-old multiparous Malay woman presented with prolonged irregular menses and intermenstrual bleeding. Initial investigations revealed a thickened endometrium (14 mm) and a small fibroid, while endometrial biopsy was benign. She was subsequently managed conservatively with surveillance. During evaluation of incidentally detected microcytic iron deficiency anaemia that persisted despite iron replacement, endoscopic assessment identified an obstructing sigmoid adenocarcinoma. Following left hemicolectomy and adjuvant chemotherapy, genetic testing was performed due to young age at diagnosis, tumour loss of MSH6 expression, and a strong family history of colorectal, ovarian, and gastric cancers. Lynch syndrome was confirmed. Given her background of non-atypical endometrial hyperplasia and newly diagnosed Lynch syndrome, repeat endometrial assessment was performed while awaiting risk-reducing surgery. Histology from dilatation and curettage demonstrated fragments suspicious for endometrioid adenocarcinoma. Imaging showed disease confined to the endometrium. She subsequently underwent total laparoscopic hysterectomy, bilateral salpingo-oophorectomy, and sentinel lymph node biopsy. ***Results***: Final histopathology confirmed FIGO stage IA, grade 1 endometrioid endometrial carcinoma measuring 3.5 mm with no myometrial invasion, lymphovascular space invasion, or nodal metastases. Tumour testing demonstrated MSH6 deficiency and microsatellite instability-high (MSI-H) status. Follow-up surveillance showed no evidence of recurrence. ***Discussion***: This case highlights the diagnostic value of investigating persistent IDA and the importance of recognising Lynch syndrome in patients with colorectal cancer and significant family history. Identification of Lynch syndrome prompted intensified gynaecological surveillance, leading to the detection of an asymptomatic, early-stage endometrial carcinoma. A multidisciplinary approach involving gastroenterology, genetics, oncology, and gynaecology facilitated timely diagnosis and definitive management, resulting in an excellent oncological outcome.

EFFECTS OF A MONOPHASIC HORMONAL CONTRACEPTIVE WITH NORGESTIMATE + ETHINYLESTRADIOL IN ITALIAN WOMEN: PRELIMINARY RESULTS OF A MULTICENTER, PROSPECTIVE, OPEN-LABEL, NON-COMPARATIVE STUDY

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Problem statement: Norgestimate (NGM) is a progestin available in combination with ethinylestradiol (EE) as a monophasic combined oral contraceptive (COC). Despite its long history of use, recent data on menstrual patterns and extra-contraceptive outcomes with this formulation remain limited. The primary objective

of the study is to evaluate the cycle control of a monophasic COC containing NGM 0.25 mg and EE 0.035 mg. Its impact on mood, sexual function, acne and dysmenorrhea is also evaluated. ***Methods***: This ongoing prospective multicentric study involves healthy Italian women aged 18–35, starting or switching to this COC. Enrollment began in July 2023. Participants complete a 6-cycle diary recording menstrual cycle characteristics and dysmenorrhea (using a 100-mm visual analog scale (VAS)). Acne severity is assessed using the Global Acne Grading Scale (GAGS), mood via the Profile of Mood States (POMS) and sexual function using the Female Sexual Function Index (FSFI) at baseline and at 3 and 6 months. ***Results***: Preliminary analyses included women with complete data at baseline and cycles 3 and 6. Among 54 women, mean systolic and diastolic blood pressure, heart rate and body weight did not significantly change. At cycle 6, breakthrough bleeding was reported by only 6/51 women, while withdrawal bleeding was absent in just 1/49 subjects. Cycle duration and regularity reached 100%, and flow shifted toward lighter bleeding, with heavy flow reported by only 2% of women (n=51). Among 55 women, mean VAS score for dysmenorrhea decreased from 53.5 to 27.2 at cycle 6. Among 47 women, sexual dysfunction prevalence decreased from 47% to 40%, while the proportion of women without acne rose from 43.8% to 62.5% at cycle 6, with no cases of moderate or severe acne reported (n=48). Total Mood Disturbance average scores also declined among the 43 women who completed the POMS. ***Conclusions***: Preliminary results indicate favourable menstrual control with NGM/EE 0.25mg/0.035mg and suggest potential benefits for dysmenorrhea, mood, sexual function and acne. Nevertheless, given the limited number of women with complete follow-up, these encouraging findings should be interpreted cautiously. Continued data collection will be important to confirm these trends.

Italfarmaco SpA is the study sponsor.

STAGED MULTIDISCIPLINARY MANAGEMENT OF A RECURRENT OBSTETRIC RECTOVAGINAL FISTULA FOLLOWING A FOURTH-DEGREE PERINEAL TEAR

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Problem statement: Rectovaginal fistula (RVF) is a rare but devastating complication of obstetric anal sphincter injury (OASI) in a first world country. Management becomes particularly challenging after failed primary fistula repair, especially in young women wishing to preserve quality of life, continence and sexual function. We report the successful staged management of a recurrent obstetric recto vaginal fistula following a fourth-degree perineal tear. ***Methods***: A 28-year-old primiparous woman delivered a 4200 g infant vaginally and sustained a fourth-degree perineal tear, which was repaired immediately after delivery. The patient developed a rectovaginal fistula and six months postpartum, a surgical attempt to close a rectovaginal fistula was undertaken but showed an early recurrence. The patient presented to us for a second opinion. Her complaints were passage of gas and stool through the vagina. Clinical examination demonstrated a fibrotic, thinned rectovaginal septum and a suprasphincteric rectovaginal fistula measuring approximately 1 cm. Pelvic magnetic resonance imaging confirmed a high fistulous tract located immediately below the anorectal junction. Following multidisciplinary evaluation by colorectal and gynecologic surgeons, a staged procedure was performed. A temporary diverting colostomy was created laparoscopically, followed by transvaginal fistula repair. The rectovaginal septum was extensively dissected, the rectal defect was closed in two layers, and the rectovaginal fascia together with the puborectalis muscles were approximated to create a robust interposition layer. Vaginal closure and perineal body reconstruction completed the repair. ***Results***: The procedure was completed without intraoperative complications. Anatomical separation of the rectal and vaginal compartments was achieved through multilayer reconstruction. Early postoperative recovery was uneventful, with satisfactory healing of the repair and resolution of fistula-related symptoms. The colostomy was reversed after 8 weeks. ***Conclusion***: Recurrent obstetric rectovaginal fistula after obstetric anal sphincter injury remains a complex reconstructive challenge. A multidisciplinary staged approach combining temporary fecal diversion with meticulous multilayer transvaginal repair and reconstruction of the rectovaginal septum can provide favorable anatomical and functional outcomes. This strategy should be considered in young women with recurrent fistulas and compromised local tissue quality.

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CLINICAL PRESENTATION OF UTERINE TUMOR RESEMBLING OVARIAN SEX-CORD TUMORS: A CASE REPORT

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Problem statement: Uterine tumors resembling ovarian sex-cord tumors (UTROSCT) are rare, with fewer than 100 reported cases. They are often benign but increasingly recognized as neoplasms of uncertain malignant potential due to reports of metastasis. Clinical recognition and characterization remain limited, making case documentation important for guiding management and surveillance. ***Method***: We present the case of a 44-year-old gravida 2, para 2 woman with a 10-year history of menorrhagia and symptomatic anemia. She underwent imaging, surgical intervention, and histopathologic evaluation. ***Results***: Transvaginal ultrasound demonstrated leiomyomatous changes, including a dominant fibroid measuring 8.5 × 8.5 × 11.2 cm. The patient underwent total abdominal hysterectomy with bilateral salpingectomy due to limited uterine mobility. Gross pathology revealed multiple intramural nodules and a separate 505 g nodular mass attached to the uterine fundus. Histologic evaluation demonstrated features consistent with UTROSCT, including low mitotic activity, absence of necrosis, and no lymphovascular invasion. Immunohistochemistry was positive for keratin, AE1/3, calretinin, focal inhibin, WT1, desmin, and estrogen receptor, and negative for claudin 4, CK5/6, D240, HMB45, and Mart-1, with equivocal FOXL2. Postoperatively, the patient recovered without complications and was referred for gynecologic oncology follow-up. ***Conclusion***: This case illustrates the clinical presentation and pathologic features of UTROSCT, a rare uterine neoplasm with uncertain malignant potential. While most cases behave benignly, reports of delayed extrauterine metastasis highlight the need for surveillance even after definitive surgery. Documenting additional cases contributes to understanding baseline clinical presentation, immunohistochemical profiles, and long-term outcomes, thereby informing management strategies and follow-up protocols.

AN UNEXPECTED DIAGNOSIS: SCLERODERMA PRESENTING AS A BREAST NODULE

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Problem statement: Localized scleroderma (morphea) is a rare autoimmune disorder characterized by painless, discolored and indurated patches of the skin. Morphea of the breast is an uncommon presentation that can easily be misidentified as a malignant breast nodule. This diagnostic challenge is particularly pronounced following breast implant replacement or radiotherapy. Recognizing this atypical presentation is crucial to avoid unnecessary surgical interventions or misdiagnosis. **Methods**: A clinical case evaluation was conducted on a 46-year-old female patient referred to Gynecology due to a new-onset nodule in the right breast. The diagnostic workup included a detailed physical examination, breast ultrasonography, mammography and core needle biopsy (CNB). ***Results***: Relevant medical history includes Raynaud`s syndrome, scleroderma, Gilbert`s syndrome, and papillary thyroid carcinoma. Regarding her gynecological history: paternal grandmother developed breast cancer; G1P1; menopause onset 2 years prior. Physical examination revealed a painless, indurated 3x2 cm nodule in the lower-outer quadrant of the right breast, which had been present for 15 days. Mammography was inconclusive due to a dense (type C) breast pattern; thus, the evaluation was completed with ultrasound. Breast ultrasonography revealed a heterogeneous zone that could correspond to an area of mastopathy, classified as BI-RADS 4. The biopsy demonstrated stromal sclerosis along with perivascular and periductal lymphocytic

inflammatory infiltrate. Based on these findings, a diagnosis of localized scleroderma (morphea) was established. Due to severe patient anxiety regarding the nodule, a lumpectomy was performed at her request. Subsequent pathological analysis confirmed the diagnosis, ruling out the presence of carcinoma in the surgical specimen. ***Conclusion***: Morphea of the breast can clinically mimic breast nodules. The most commonly reported associations include previous breast implant surgery or as a late complication of radiotherapy. In patients with silicone implants, this condition may be associated with silicon-related immune reactions within the framework of ASIA syndrome (Autoimmune Syndrome Induced by Adjuvants). Careful clinical-pathological correlation is essential to establish an accurate diagnosis and initiate appropriate immunosuppressive therapy, preventing unnecessary surgical resections of benign inflammatory lesions.

DEEP-INFILTRATING ENDOMETRIOSIS CAUSING ACUTE MECHANICAL INTESTINAL OBSTRUCTIONWITHOUT INTESTINAL INVASION: A CASE REPORT

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Background: Endometriosis is a chronic, estrogen-dependent disorder that may extend beyond the pelvis to involve the gastrointestinal tract, most commonly the rectosigmoid and, less frequently, the small bowel. Although often asymptomatic, such lesions may rarely manifest as acute bowel obstruction. ***Case***: We report a 42-year-old woman who presented with small bowel ileus caused by deep-infiltrating endometriosis (DIE). Imaging revealed a right ovarian endometrioma with severe adhesions resulting in a distal ileal transition point. After partial decompression with conservative treatment, laparoscopic adhesiolysis with right salpingo-oophorectomy and left salpingectomy was undertaken. Intraoperative findings revealed dense adnexal–ileal adhesions without transmural involvement. Postoperative hormonal suppression was instituted. ***Conclusions***: This rare case demonstrates small bowel obstruction caused by DIE adhesions without intestinal invasion. Preoperative imaging facilitated a minimally invasive approach, while combined surgical and hormonal therapy was associated with reduced recurrence risk. These findings expand the recognized spectrum of endometriosis-related intestinal complications and support tailored management strategies.

ADENOMYOMATOUS ENDOMETRIAL POLYP (TYPICAL POLYPOID ADENOMYOMA) PROLAPSING THROUGH THE CERVIX IN A 19-YEAR-OLD WOMAN: A RARE CASE REPORT

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Problem statement: Adenomyomatous endometrial polyps, also termed typical polypoid adenomyomas (TPA), are uncommon benign lesions composed of endometrial glands within a fibrous vascularized stroma containing smooth muscle. Their polypoid morphology may mimic an endometrial or cervical polyp, submucosal leiomyoma, atypical polypoid adenomyoma (APA), or Müllerian adenosarcoma. Presentation as a prolapsing lesion in a very young woman is exceptional. ***Methods***: A 19-year-old nulliparous woman who had never been sexually active was evaluated for recurrent abnormal vaginal discharge, previously treated on several occasions as presumed vaginal infection. Because of her virginal status, speculum examination was deferred. Transabdominal pelvic ultrasonography suggested a polypoid uterine lesion. Pelvic magnetic resonance imaging (MRI) showed a 25-mm enhancing lesion projecting through the external cervical os into the upper vaginal fornix, with an approximately 25-mm vascular pedicle arising from the posterior uterine cavity wall, supporting a uterine-cavity origin. Complete hysteroscopic excision under direct vision was performed, preserving the uterus and cervix. ***Results***: Gross examination revealed a pedunculated polypoid lesion measuring 3 × 2 × 0.5 cm with a 1.5-cm stalk. Histopathology showed variably sized endometrial glands, some cystically dilated, within a fibrous vascularized stroma containing numerous smooth-muscle fibers, without cytologic atypia, architectural crowding, or malignancy. Immunohistochemistry was not performed; however, the histomorphology was characteristic of a benign adenomyomatous endometrial polyp. Following excision, abnormal vaginal discharge decreased substantially. Over 7 years of follow-up, there was no recurrence or reintervention. ***Conclusion***: Adenomyomatous endometrial polyps should be considered in the differential diagnosis of polypoid lesions presenting at the cervix, even in very young women. Imaging helps establish lesion origin, while histopathology is essential to distinguish this benign entity from APA and Müllerian adenosarcoma. Hysteroscopic excision provides a minimally invasive, fertility-preserving diagnostic and therapeutic approach.Long-term absence of recurrence supports the benign clinical course.



GROWING TERATOMA SYNDROME IN A 35-YEAR-OLD FILIPINO-JAPANESE NULLIGRAVID

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A 35-year-old Filipino-Japanese nulligravid presented with bloating, decreased menstrual flow, abdominal pain, weight loss, early satiety, and a rapidly enlarging palpable abdominal mass that occurred within two weeks. Imaging showed a 258.1 x 189.8 x 103.8 mm, irregularly solid pelvo-abdominal mass, with scattered fat and calcific elements at the right ovary, with massive ascites and omental caking. Chest computed tomography (CT) scan revealed non-specific, non-calcified pulmonary nodules in the right lung, with trace bilateral pleural effusion. Tumor markers (Cancer Antigen-125 [CA-125], alpha-fetoprotein [AFP], beta-HCG, and lactate dehydrogenase [LDH]), were elevated. A malignant teratoma with intraperitoneal carcinomatosis was considered. The patient underwent an extrafascial hysterectomy, bilateral salpingectomy, right oophorectomy, left oophorocystectomy, pelvic and bladder peritonectomy, omentectomy, and resection of rectosigmoid serosa and cul-de-sac. Approximately 4.4 liters of ascites were drained intraoperatively. Histopathology confirmed a Stage IIIC immature teratoma of the right ovary with peritoneal involvement. The patient received two cycles of BEP chemotherapy (bleomycin, etoposide, and cisplatin), complicated by neurotoxicity and ototoxicity. Despite chemotherapy, she developed recurrent ascites, worsening abdominal symptoms, pulmonary nodules, and a new hepatic mass. Ironically, the tumor markers showed a downward trend during this period. Because of the apparent disease progression, an exploratory laparotomy with cytoreductive surgery (excision of perihepatic mass with diaphragmatic stripping) and damage control surgery (cholecystectomy, splenectomy, total omentectomy, total colectomy, pelvic peritonectomy, attempted resection of recurrent tumor on the right upper quadrant, and end ileostomy) were performed. Histopathologic examination of the large perihepatic mass demonstrated a mature cystic teratoma with mature glial elements, without traces of immature teratoma or any malignant transformation, leading to the diagnosis of Growing Teratoma Syndrome (GTS). First described as chemotherapeutic retroconversion, GTS refers to the growth of mature teratoma tissue during or after chemotherapy for a malignant germ cell tumor. Theories suggest that chemotherapy selectively destroys immature

cells, leaving mature components to grow. Risk factors include advanced-stage disease and incomplete resection. While medical therapies exist, complete surgical resection is the preferred treatment to lower recurrence rates. Imaging surveillance during chemotherapy is invaluable in the early identification and recognition of new tumors that may lead to this disease entity.

AN UNEXPECTED BARRIER TO RECOMMENDED ONCOLOGIC CARE

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Background: Adjuvant vaginal vault brachytherapy (VBT) is the standard of care for intermediate-risk FIGO Stage IB, Grade 2 endometrioid endometrial adenocarcinoma (EAC) per ESGO–ESTRO–ESP guidelines, reducing vaginal recurrence. Delivery depends on patent vulvovaginal anatomy. Erosive vulvovaginal diseases produces painful erosions, synechiae and introital obliteration that can render brachytherapy undeliverable, with under-recognised oncological consequences. ***Case***: A 60-year-old woman presented concurrently with abnormal uterine bleeding and painful vulval and oral erosions; vulvo-oral findings were thought to be consistent with erosive lichen planus (ELP), with subsequent biopsy histology and immunofluorescence raising a diagnosis of paucicellular autoimmune bullous disorder. She underwent total hysterectomy, bilateral salpingo-oophorectomy and sentinel lymph node biopsy. Final histology was Stage IB Grade 2 EAC. Multidisciplinary review recommended adjuvant VBT, but joint gynae-oncology and radio-oncology assessment deemed it undeliverable owing to introital erosion, adhesions and inability to tolerate vaginal examination. Despite systemic prednisolone, topical clobetasol and immunosuppression with azathioprine, vulvovaginal disease progressed. At 2 years 5 months of cancer surveillance, she developed postmenopausal bleeding with rising CA-125. CT scan demonstrated a 3.1 cm left vaginal vault mass. Examination revealed near-complete labial fusion with a 1 mm posterior aperture precluding biopsy; surgical resection was recommended after multi-disciplinary discussion. ***Discussion***: An active vulvovaginal dermatosis directly compromised guideline-concordant oncologic care. In retrospect, intensive pre-operative dermatologic optimisation may have preserved access for standard brachytherapy; failing that, interstitial brachytherapy and external-beam pelvic radiotherapy — which does not require a patent vaginal lumen — could have been formally evaluated before adjuvant radiotherapy was abandoned, with systemic therapy reserved as a fallback. ***Conclusion***: Severe erosive vulvovaginal disease can preclude standard adjuvant brachytherapy and may contribute to vault recurrence in early-stage endometrial cancer. Routine pre-operative vulvovaginal assessment, pre-emptive dermatologic therapy and formal multidisciplinary algorithms for radiotherapy alternatives should be considered in patients with severe erosive vulvovaginal disease.

MIXED ADENONEUROENDOCRINE CARCINOMA OF THE VAGINAL INTROITUS: A DIAGNOSTIC CHALLENGE WITH UNCERTAIN PRIMARY ORIGIN

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Problem statement: Mixed neuroendocrine–non-neuroendocrine neoplasms (MiNENs) are rare, aggressive tumours that may present at unusual sites. Distinguishing a primary gynaecological malignancy from metastatic disease is essential. We report an unusual vaginal lesion in a woman with previous cervical dysplasia and pathological findings suggesting metastatic disease despite negative gastrointestinal investigations. ***Methods***: Clinical, radiological, histopathological, immunohistochemical, and staging findings were reviewed. Literature on MiNENs and neuroendocrine neoplasms of uncertain primary origin was reviewed. ***Results***: A 55-year-old G3P3 woman, postmenopausal for five years, presented with a painful right femoroinguinal mass of 10 days' duration and low-grade fever. She had previous HGSIL treated by cone biopsy 10 years earlier, with clear margins and HPV DNA 16 positivity. Five years later, LGSIL was identified on cervical cytology; biopsy demonstrated LGSIL with negative HPV DNA. Examination revealed a hard, mobile, tender right inguinal mass and a 1 cm painless right vaginal introitus lesion. MRI demonstrated a 4.6 cm right inguinal mass consistent with pathological lymphadenopathy. Excision of the vaginal lesion demonstrated mixed adenocarcinoma and large-cell neuroendocrine carcinoma. Immunohistochemistry was negative for ER, PR, vimentin, PAX8, GATA3, and p40; positive for p16 (block-type), p53 (mutant/overexpression pattern), CK20, CDX2, SATB2, synaptophysin, and chromogranin; and showed focal CK7 expression. Ki-67 exceeded 90%. The findings favoured metastatic vaginal involvement by MiNEN, with possible colorectal, uterine, pancreaticobiliary, or cervical origin. Cervical biopsies at lesion removal were negative. CT of the chest and upper abdomen, pelvic MRI, gastroscopy, colonoscopy, mammography, breast ultrasound, and tumour markers revealed no identifiable primary tumour. PET demonstrated a hypermetabolic right inguinal mass, an enlarged right external iliac lymph node, and mild diffuse vaginal uptake without a clear focal lesion. No distant metastases were identified. ***Conclusion***: This case highlights the diagnostic complexity of an unusual vaginal lesion in a patient with previous cervical dysplasia. The combination of mixed adenocarcinoma and large-cell neuroendocrine carcinoma, high Ki-67, and an immunophenotype favouring metastatic MiNEN underscores the importance of considering metastatic disease in atypical gynaecological lesions. Comprehensive staging and multidisciplinary review are essential to establish the most likely primary site and guide management.

MULLERIAN DUCT ANOMALIES AND IPSILATERAL RENAL AGENESIS: THE CLINICAL CHALLENGES OF OHVIRA SYNDROME AND ITS ATYPICAL VARIANTS

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Problem statement: Obstructed Hemivagina and Ipsilateral Renal Agenesis (OHVIRA) syndrome is a rare congenital anomaly. While classical presentation involves uterine didelphys, non-classical variants, such as septate or bicorporeal uteri and unilateral cervico-vaginal atresia, present significant diagnostic challenges. Delayed diagnosis frequently leads to retrograde menstruation and progressive complications, including pelvic endometriosis, adhesive disease, and pelvic infections. ***Methods***: Three clinical cases presenting with cyclic pelvic pain and renal agenesis were evaluated using 2D/3D pelvic ultrasound, CT, and MRI for anatomical mapping. All patients underwent multi-modal surgical intervention, combining operative laparoscopy, diagnostic/operative hysteroscopy, diaphanoscopy, and septum resection under general anesthesia, to establish a patent outflow tract and address secondary pelvic pathology. ***Results***: Case 1 (12-year-old) exhibited a septate uterus (U2bC2V2), left obstructing longitudinal vaginal septum, left renal agenesis, and Stage I endometriosis, managed via laparoscopic salpingo-ovariolysis and vaginal septum resection. Case 2 (11-year-old) presented with a complete bicorporeal uterus, unilateral cervico-vaginal atresia, right renal agenesis, and Stage I endometriosis, successfully treated via transcervical uterine septum excision. Case 3 (21-year-old) presented with classical uterine didelphys (U3bC2V2), right renal agenesis, Stage IV endometriosis, and pelvic inflammatory disease with a tubo-ovarian complex, requiring adhesiolysis, abscess drainage, and ultrasound-guided vaginal septum resection. Surgical intervention successfully restored patent outflow tracts and resolved symptoms across all cases. ***Conclusion***: Multi-modal imaging integrated with minimally invasive surgical exploration is critical for accurately mapping anatomical boundaries in atypical OHVIRA variants. Prompt surgical relief of outflow obstruction halts retrograde flow, prevents secondary pelvic complications, and preserves reproductive potential.
The authors declare no conflict of interest.

GYN OTHER

PILOT VALIDATION OF THE IOTA ADNEX MODEL FOR PREDICTING OVARIAN MALIGNANCY: CORRELATION WITH HISTOPATHOLOGIC RESULTS IN A PHILIPPINE TERTIARY HOSPITAL

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Problem statement: Reliable preoperative assessment of adnexal masses is essential for appropriate surgical planning and timely referral to gynecologic oncology. The International Ovarian Tumor Analysis Assessment of Different NEoplasias in the adneXa (IOTA ADNEX) model has demonstrated excellent diagnostic performance internationally, but institutional validation data from the Philippines remain limited. This study evaluated the diagnostic performance of the IOTA ADNEX model against histopathologic diagnosis in a Philippine tertiary hospital. ***Methods***: A retrospective pilot diagnostic accuracy study was conducted among women who underwent surgery for adnexal masses at a tertiary hospital from January 2023 to December 2025. Preoperative ADNEX risk estimates were compared with final histopathologic diagnoses. Borderline tumors were analyzed together with malignant tumors. Discriminatory performance was assessed using receiver operating characteristic analysis, diagnostic accuracy measures, and calibration assessment. ***Results***: Thirty-nine patients were included: 24 benign (61.5%), 5 borderline (12.8%), and 10 malignant tumors (25.6%). The ADNEX model achieved an area under the receiver operating characteristic curve of 0.800 (95% confidence interval [CI] 0.622–0.950). At the recommended 10% cutoff, sensitivity was 86.7%, specificity 58.3%, positive predictive value 56.5%, negative predictive value 87.5%, and overall accuracy 69.2%. The optimal cutoff identified by the Youden Index was 47.5%, yielding sensitivity of 80.0%, specificity of 87.5%, and overall accuracy of 84.6%. ADNEX risk scores correlated significantly with increasing histopathologic severity (Spearman ρ=0.577, $p<0.001$). Performance was notably higher among postmenopausal women (area under the receiver operating characteristic curve 0.926) compared with premenopausal women (0.622). ***Conclusion***: The IOTA ADNEX model demonstrated good discriminatory ability and excellent negative predictive value in this pilot Philippine cohort, supporting its role as a practical preoperative rule-out tool for ovarian malignancy. Superior performance among postmenopausal women suggests menopausal status may influence model accuracy. These findings provide baseline institutional evidence supporting broader multicenter validation and potential local implementation of the ADNEX model.
Disclosure of interest: *None declared.*

GUIDING INTIMATE GYNAECOLOGICAL EXAMINATION: A QUALITATIVE STUDY EXPLORING RESIDENT DOCTOR`S EXPERIENCES ON SUPERVISING MEDICAL STUDENTS PERFORMING PELVIC EXAMINATIONS ON PATIENTS

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Problem statement: Obstetrics and Gynaecology (OBGYN) residents are often responsible for medical students fulfilling their learning objectives during clerkship, which includes performing Pelvic Examinations (PLEs). Limited research exists on OBGYN residents` experiences in supervising medical students performing these Intimate Examinations on patients. This study explores how OBGYN residents navigate this supervisory role through the lens of the Cognitive Apprenticeship Model (CAM), by investigating their experiences of supervising students performing PLE on patients. ***Methods***: This qualitative study, conducted at a single tertiary hospital in Singapore, involved purposive sampling of ten OBGYN residents, reaching thematic sufficiency. Data were collected via one-on-one, semi-structured interviews, informed by CAM. Data were analyzed thematically using CAM, as a sensitizing framework. Reflexivity meetings were held for transparency of findings and interpretations. ***Results***: Two overarching themes captured residents' supervisory experiences: (1) challenges and support related to nuances of PLEs, and (2) limited opportunities for students to perform them. Participants indicated that students particularly struggled with Speculum Examinations. Residents helped by providing stepwise guidance, employing CAM components. Students had restricted exposure to Bimanual Vaginal Examinations, as residents took over to reduce patient discomfort. Supervision was further constrained by consent issues, student factors, and systemic barriers. Residents employed CAM strategies to overcome these challenges. ***Discussion***: Residents' supervision of PLEs was influenced by patient, student, and system-level factors. Despite this, residents used CAM strategies to overcome them when opportunities arose, providing stepwise coaching, role modelling, reflection, and exploring ways to improve student PLE supervision. These findings offer valuable insights for healthcare educators and supervisors in designing Resident-as-Teacher curricula for Intimate Examinations.

BEYOND BACTERIAL VAGINOSIS: THE ROLE OF GENITAL MICROBIOTA DYSBIOSIS IN CHRONIC PELVIC PAIN AND FEMALE SEXUAL DYSFUNCTION

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Problem statement: Vaginal infections, particularly bacterial vaginosis, are among the most common gynecological conditions and are frequently associated with disruption of the physiological vaginal microbiota. Recurrent dysbiosis may promote persistent local inflammation and repeated infectious episodes, potentially contributing to chronic pelvic symptoms and impaired sexual health. Beyond microbiological findings, recurrent genital symptoms may affect multiple dimensions of women's health, as persistent discharge, irritation, discomfort, and dyspareunia can interfere with daily activities, emotional well-being, intimate relationships, and overall quality of life, emphasizing the importance of clinically evaluating these patients beyond infection alone. Our aim was to characterize the spectrum of genital microbial alterations in women with vaginal infections and to assess their association with recurrent infections, chronic pelvic pain, and female sexual dysfunction. ***Methods***: This observational study included 250 patients aged 17–71 years, presenting with genital infectious conditions. Microbiological assessment included testing for Chlamydia, Mycoplasma, Ureaplasma, Candida, Gardnerella, Enterococcus, Klebsiella, Escherichia coli, Streptococcus and human papillomavirus (HPV). Associated cervical cytological abnormalities, including ASC-US, concomitant urinary tract infections, and relevant comorbidities were also evaluated. Particular attention was given to bacterial vaginosis, recurrent vaginal infections, chronic pelvic pain, and female sexual dysfunction. ***Results***: Genital microbial alterations were common, with polymicrobial associations frequently identified. Bacterial vaginosis and Gardnerella-associated dysbiosis were prominent findings. Female sexual dysfunction was frequently reported among women with vaginal infections, indicating a clinically relevant association between genital infectious conditions and impaired sexual health. Recurrent vaginal infections were also commonly associated with chronic pelvic pain. The coexistence of bacterial, fungal, viral, and urinary tract infections highlights the multifactorial nature of the clinical presentation. ***Conclusions***: Vaginal microbiota dysbiosis, particularly in women with bacterial vaginosis and recurrent vaginal infections, may be associated with broader gynecological consequences, including chronic pelvic pain and female sexual dysfunction. These findings support a comprehensive clinical assessment of women with recurrent vaginal infections, including evaluation of persistent pelvic and sexual symptoms. Further prospective studies are needed to clarify the mechanisms underlying these associations and the potential role of microbiota-directed interventions.
Disclosure of interest: *The authors declare no conflicts of interest.*

DETERMINATION OF MICROBIOTA AWARENESS AND HEALTH LITERACY IN WOMEN OF REPRODUCTIVE AGE: A DESCRIPTIVE AND CROSS-SECTIONAL STUDY

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Problem Statement: In protecting and promoting the overall health status of women of reproductive age, microbiota awareness and health literacy levels emerge as critical determinants.This study was conducted to determine the level of microbiota awareness and health literacy in women of reproductive age and to examine the relationship between these two variables. ***Methods***: This descriptive and cross-sectional study was conducted in the gynecology outpatient clinics of a city hospital between March and December 2025. The sample of the study consisted of 310 women who met the inclusion criteria. Data were collected using the

Personal Information Form, the Microbiota Awareness Scale (MAS), and the Türkiye Health Literacy Scale-32 (THL-32). Descriptive statistics, Pearson correlation analysis, and multiple linear regression analysis were used in the analysis of the data. ***Results***: The mean age of the participants was determined as 30.08±6.03 years. It was found that the women had a moderate level of microbiota awareness (57.75±24.02), and according to the cut-off scores, 64.5% had inadequate health literacy. A positive, very strong, and statistically significant relationship was found between the MAS and the total and subdimension scores of the THL-32 ($r = 0.985$, $p < 0.01$). According to the results of the multiple linear regression analysis, microbiota awareness explained 97.0% of the variance in health literacy ($p < 0.001$). In addition, being a primary school graduate, living in a rural area (village), and smoking were identified as significant predictors that negatively affected both microbiota awareness and health literacy. ***Conclusion***: It was concluded that women of reproductive age had a moderate level of microbiota awareness and inadequate health literacy, and that microbiota awareness was the strongest determinant of health literacy. Accordingly, it is recommended to develop education and counseling programs aimed at increasing microbiota awareness among women of reproductive age, to plan holistic interventions that will strengthen health literacy, and to include awareness-raising practices in primary healthcare services.

GYN TECHNOLOGICAL INNOVATIONS

DOES THE PSEUDOANEURYSM CAUSE OF POSTOPERATIVE VAGINAL VAULT BLEEDING?

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Pseudoaneurysm may be happened during AV shunt, catheterization procedure of cardiovascular workup. Some structure of artery had defect and cause cavity around vessels. It can be pulsetile by vessel movements. ***Case***: A 39 years old woman was diagnosed early cervical cancer with 1mm stromal invasion. She had history of mitral valve replacement and she had taken Warfarin to prevent thromboembolism. She has total laparoscopic hysterectomy after heparin switch managements of warfarin, She had vaginal vault bleeding after at POD#5 warfarin change. At first we thought bleeding due to relaxed suture site, So we sutured vault under general anesthesia. The same event happened more than two times. We decided to do vessel embolization after femoral catheterization. We found 2cm sized diameter round tumor with dye injection flowmetry. We closed the bleeding site with tissue glue. There was no bleeding any more after embolization. ***Conclusion***: Pseudoaneurysm can be a cause of bleeding affected by warfarin, Embolization can be a treatment of choice for vessel defect bleeding.

ACCEPTABILITY OF USING MOBILE APPLICATION FOR FAMILY PLANNING AMONG FILIPINO WOMEN IN A TERTIARY HOSPITAL IN BATANGAS

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Problem statement: Mobile health technologies have emerged as promising tools to improve access to family planning information, particularly in low- and middle-income countries. However, evidence regarding the acceptability of mobile application–based family planning decision aids among Filipino women remains limited. This study evaluated the acceptability of the e-Plano Family Planning Service mobile application and identified factors associated with its acceptance among women attending a tertiary hospital family planning clinic. ***Methods***: A cross-sectional study was conducted among 222 Filipino women aged 18–45 years attending a tertiary hospital family planning clinic in Batangas, Philippines, between October and November 2025. Participants independently explored the e-Plano mobile application before completing validated self-administered questionnaires assessing demographic characteristics, family planning knowledge, attitudes, practices, and application acceptability. Associations between participant characteristics and acceptability were analyzed using Chi-square tests with statistical significance set at $p<0.05$. ***Results***: Participants demonstrated high awareness of intrauterine devices (68.0%), implants (67.6%), injectables (60.4%), and male condoms (55.4%), while awareness of natural, emergency, and male-centered methods remained low. The application showed high acceptability: 91.4% considered it useful, 86.9% found it easy to understand, 98.4% preferred the Tagalog version, 93.2% intended to use it in future pregnancies, and 94.1% would recommend it to others. Acceptability was not significantly associated with age, civil status, gravidity, educational attainment, employment, religion, or income (all $p>0.05$). Among contraceptive methods, only implant use was significantly associated with acceptability ($p=0.014$). Perceived usefulness, language preference, intention for future use, and willingness to recommend the application were all strongly associated with acceptability (all $p<0.001$). ***Conclusion***: The e-Plano mobile application demonstrated high acceptability among Filipino women regardless of demographic or socioeconomic characteristics. Application usability and contextual relevance, rather than participant characteristics, were the primary determinants of acceptance. Mobile health tools designed with user-centered features and local language support may enhance family planning counseling and improve access to reproductive health information in resource-limited settings.

Disclosure of interest: *The authors declare no conflicts of interest.*

GYNECOLOGICAL ONCOLOGY

REPRODUCTIVE AND ONCOLOGICAL OUTCOMES AFTER FERTILITY-SPARING SURGERY FOR BORDERLINE OVARIAN TUMORS: A SYSTEMATIC REVIEW

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Problem statement: Borderline ovarian tumors (BOTs) frequently affect women of reproductive age, making fertility preservation an important consideration in their management. Fertility-sparing surgery (FSS), preserving the uterus and at least part of one ovary, represents an important treatment option. However, evidence regarding reproductive outcomes and oncological safety remains heterogeneous. This systematic review aimed to evaluate reproductive and oncological outcomes following FSS for BOTs. ***Methods***: A systematic literature search was conducted in PubMed from September to December 2025 using terms related to fertility, pregnancy and BOTs. Studies including women with histologically confirmed BOTs who underwent FSS and reported relevant reproductive or oncological outcomes were eligible. Outcomes were synthesized descriptively. Study-specific pregnancy and recurrence rates were calculated using clearly reported denominators and presented with Wilson 95% confidence intervals. Risk of bias was assessed using design-appropriate tools. ***Results***: Thirty-eight independent studies published between 1996 and 2024, including 2,808 women who underwent FSS, were included. Among 17 studies reporting a clear denominator of women actively attempting conception, study-specific pregnancy rates ranged from 46.9% to 100%. The 100% estimate originated from an abstract-only study of six patients. After its exclusion, rates ranged from 46.9% to 88.2%. Live-birth outcomes were reported in 25 studies, although heterogeneous reporting precluded calculation of comparable live-birth rates. Successful reproductive outcomes were also reported in selected women with bilateral, advanced-stage or recurrent disease. Across 30 studies, recurrence rates ranged from 0% to 73.4%, with the highest rate reported in a selected cohort of women with bilateral serous BOTs. Most recurrences involved the remaining or conservatively treated ovary, were borderline in nature and were surgically managed, while invasive progression and disease-related mortality were uncommon. ***Conclusion***: FSS appears to provide favorable reproductive outcomes with acceptable oncological safety in appropriately selected women with BOTs. Although recurrence is not uncommon, most recurrences remain surgically manageable. Long-term surveillance, individualized patient selection and preoperative oncofertility counselling remain essential.

UNRAVELLING THE ENIGMA: A CASE OF OVARIAN GERM CELL TUMOR AND PRECOCIOUS PUBERTY IN A 7-YEAR-OLD GIRL

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Peripheral precocious puberty (PPP) is an uncommon condition resulting from gonadotropin-independent sex steroid production and is rarely caused by ovarian germ cell tumors. We report a rare case of a 7-year-old girl whose initial presentation of breast development, pubic hair growth, vaginal bleeding, and accelerated growth was subsequently found to be due to a malignant mixed ovarian germ cell tumor. Evaluation revealed markedly elevated β-human chorionic gonadotropin (β-hCG), alpha-fetoprotein (AFP), lactate dehydrogenase (LDH), and CA-125 levels. Imaging demonstrated a rapidly enlarging right ovarian mass measuring up to 17 cm with malignant features. Following multidisciplinary evaluation, the patient underwent fertility-sparing right salpingo-oophorectomy, omentectomy, and appendectomy. Histopathologic examination confirmed a malignant mixed germ cell tumor composed of choriocarcinoma (50%), yolk sac tumor (40%), dysgerminoma (10%), and mature teratoma, with omental involvement. Despite surgical management, postoperative staging revealed metastatic disease involving the lungs, liver, and brain, consistent with Stage IV disease. The patient subsequently completed six cycles of platinum-based chemotherapy with clinical improvement and remains under close oncologic surveillance. This case highlights the diagnostic challenge posed by hormonally active ovarian malignancies presenting as precocious puberty and underscores the importance of maintaining a high index of suspicion in children with vaginal bleeding, pubertal changes, and abdominal masses. Early recognition, comprehensive evaluation, and timely multidisciplinary intervention are essential for optimizing outcomes. Given the exceptional rarity of malignant mixed ovarian germ cell tumors presenting as PPP, this report contributes valuable evidence to the limited literature and emphasizes the need for heightened awareness among clinicians managing pediatric patients with atypical pubertal development.

ASSOCIATION BETWEEN HEALTH-RELATED QUALITY OF LIFE, DEPRESSION AND POST-TRAUMATIC STRESS DISORDER SYMPTOMS IN WOMEN WITH BREAST CANCER

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Background: Breast cancer (BC) significantly affects patients` quality of life (QoL),not only through the physical burden of the disease and its treatment but also through psychological consequences, including depression and post-traumatic stress disorder (PTSD). Thus, the aim of this study was to investigate the association between QoL, depression and PTSD symptoms in Greek BC patients, as well as to define risk factors for depression and PTSD in this vulnerable population. ***Methods***: A total of 107 women with BC were asked to fill in a structured demographic and clinical questionnaire, the Post-Traumatic Stress Disorder Checklist for DSM-5 (PCL-5), the Patient Health Questionnaire-9 (PHQ-9) and the EORTC Quality of Life Questionnaire-Core 30 (EORTC-QLQ-C30). ***Results***: This study found that most BC patients had depressive symptoms, with an average PHQ-9 score of 11.9 and factors like surgery, time since BC diagnosis, and type of treatment before chemotherapy were associated with higher depression levels. Depression significantly impacted QoL, particularly across most EORTC QLQ-C30 subscales. Additionally, 51.4% of patients met full PTSD diagnostic criteria, with rural residence and mastectomy linked to higher PTSD scores. Both depression and PTSD were found to significantly impair HRQoL, with PTSD patients showing higher levels of depression. ***Conclusions***: Greek BC patients experience significant levels of PTSD and depression, both of which adversely affect their QoL.

BEYOND THE ORDINARY: A RARE CASE OF OVARIAN BORDERLINE BRENNER TUMOR COEXISTING WITH MUCINOUS BORDERLINE TUMOR

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Brenner tumors often coexist with cystadenomas, though less often with cystadenocarcinomas. In approximately 25% of Brenner tumor cases, another type of tumor may be present. A mucinous cystic tumor is the second tumor in most of these cases. Consequently, the mucinous neoplasm is frequently observed with ovarian Brenner tumors, which comprise around 5% of all ovarian epithelial neoplasms. This paper aims to provide more knowledge about the coexistence of borderline Brenner and mucinous borderline tumors and the importance of early diagnosis of the said disease. A postmenopausal, Gravida 9 Para 9 (9-0-0-6), presented with persistent hypogastric pain. There is a large pelvoabdominal mass measuring 14 cm x 13 cm, palpable, cystic, slightly movable, non-tender mass at the left lower quadrant on abdominal examination. Whole abdominal ultrasound revealed a fairly to well-circumscribed, thick-walled anechoic focus with thick and thin septation and solid components that exhibit minimal vascularity on color Doppler study measuring 10.8 x 13.9 x 15.7 cm, located in the pelvic abdominal region, eccentric to the left. Carbohydrate Antigen 125 (CA 125) is within the normal range at 32.73 u/mL, while Carbohydrate antigen 19-9 (CA 19-9) and Carcinoembryonic antigen (CEA) were elevated at 441.6 u/mL and 8.73 ng/mL, respectively. She underwent Exploratory Laparotomy, Peritoneal fluid cytology, Total abdominal hysterectomy with Bilateral salpingo-oophorectomy, Infracolic omentectomy, Random peritoneal biopsy, Bilateral lymph node dissection, and appendectomy. Final histopathologic diagnosis showed Borderline Brenner Tumor Coexisting with Mucinous Borderline Tumor, Left Ovary, with other specimen negative for malignancy. The final diagnosis is Borderline Brenner tumor with mucinous borderline, Stage IA; hence, no adjuvant treatment needed. The mainstay of management for these tumors is surgical removal, with an emphasis on preserving fertility in younger patients. Although the prognosis for borderline tumors is generally favorable, there is a chance of recurrence or progression to malignancy, which calls for ongoing surveillance.

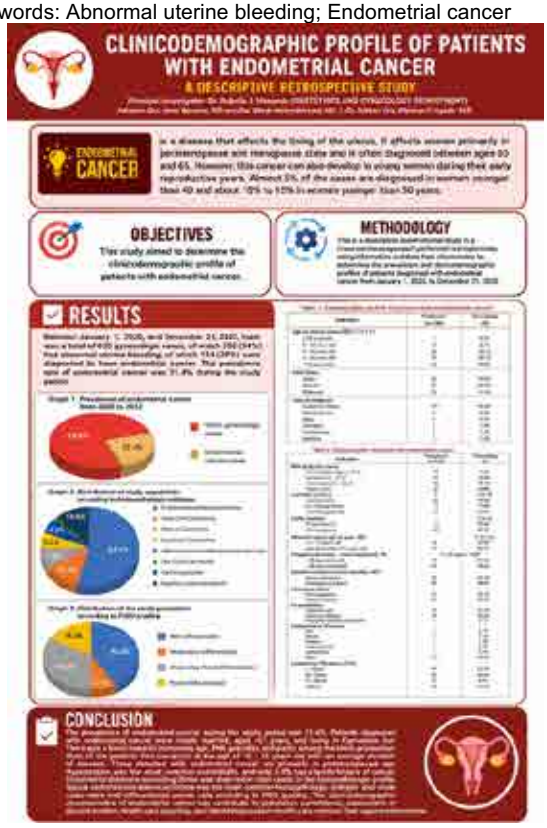
CLINICODEMOGRAPHIC PROFILE OF ENDOMETRIAL CANCER PATIENTS IN A TERTIARY GOVERNMENT HOSPITAL: A DESCRIPTIVE RETROSPECTIVE STUDY

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Problem statement: Endometrial cancer is the sixth most common cancer among women worldwide, accounting for approximately 97,000 deaths in 2020. In the Philippines, GLOBOCAN 2020 reported that it comprised 2.8% of all newly diagnosed cancers, with abnormal uterine bleeding as the most common presenting symptom. Despite its increasing burden, local data describing the clinicodemographic characteristics and histopathologic distribution of patients with endometrial cancer remain limited. This study aimed to describe the clinicodemographic profile and histopathologic distribution of patients diagnosed with endometrial cancer at Bicol Medical Center from January 1, 2020, to December 31, 2022. ***Methods***: A descriptive retrospective study was conducted through review of medical records of patients with histologically confirmed endometrial cancer. Demographic variables included age, civil status, and residence. Clinical variables included body mass index (BMI), gravidity, parity, age at menarche, menstrual history, menopausal status, comorbidities, family history of cancer, endometrial thickness on transvaginal ultrasound, and histopathologic subtype. ***Results***: Most patients were aged ≥51 years (69%) and were married (61%). Over half (55%) were overweight (BMI 23–26.9 kg/m²), while 60% were multigravida and 70% were multiparous. Menarche between 10 and 15 years occurred in 75% of patients, and more than 70% were postmenopausal. Prolonged menstrual bleeding (>8 days) was reported in over 50% of cases. Hypertension was the most common comorbidity (76.2%), whereas 13.3% had a family history of cancer. Endometrial thickness greater than 20 mm was commonly observed among postmenopausal patients. Endometrioid adenocarcinoma

was the predominant histopathologic subtype, accounting for 81.8% of cases. ***Conclusion***: Patients with endometrial cancer were predominantly postmenopausal women aged 51 years or older, with overweight BMI, multiparity, and hypertension. Endometrioid adenocarcinoma was the most common histopathologic subtype. These findings may assist clinicians in identifying high-risk patients and support strategies for earlier diagnosis and timely management.

Keywords: Abnormal uterine bleeding; Endometrial cancer



HEAT SHOCK PROTEINS IN OVARIAN CANCER: A SCOPING REVIEW OF DIAGNOSTIC, PROGNOSTIC AND THERAPEUTIC IMPLICATIONS

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Problem statement: Ovarian cancer remains associated with late diagnosis, treatment resistance and poor survival. Heat shock proteins (HSPs) regulate cellular stress responses and may provide diagnostic, prognostic and therapeutic biomarkers. We aimed to map the clinical evidence linking HSPs with ovarian cancer detection, progression, treatment response and survival. ***Methods***: Scopus, MEDLINE and the Cochrane Library were searched from database inception to 1 August 2026 for human ovarian cancer studies evaluating tissue or circulating HSP expression, HSP-related antibodies or HSP-associated co-chaperones. Data were extracted on study design, biospecimen, HSP family, analytical method, clinical endpoint and principal findings. Studies without directly usable ovarian cancer-specific HSP data were excluded. Owing to methodological and clinical heterogeneity, findings were synthesized narratively. ***Results***: Thirty-one studies published between 1993 and 2025 were included. Nineteen primarily examined tumor or local specimens, 10 evaluated circulating biomarkers, and 2 combined circulating with tissue or cell-line analyses. HSP27 was most frequently studied (13 studies), followed by HSP60 (8), HSP70 (7), HSP90 or tumor necrosis factor receptor-associated protein 1 (TRAP1) (6), HSP10 (3) and HSP20 (2); some studies assessed multiple families. HSP27 was associated with stage, peritoneal metastasis and survival, although the direction differed between tissue and serum studies. HSP60 showed prognostic associations, but results varied across cohorts. Increased HSP70 was linked to aggressive tumor behavior and chemotherapy resistance, whereas HSP90/TRAP1 was generally associated with advanced disease or poorer outcomes. Circulating HSPs and anti-HSP antibodies showed potential for non-invasive diagnosis and monitoring. Experimental data also implicated HSP10 in immune escape and demonstrated broad HSP induction following hyperthermic intraperitoneal chemotherapy. No HSP marker had sufficient external validation for routine clinical use. ***Conclusion***: HSPs are biologically and clinically relevant in ovarian cancer, with HSP27, HSP60, HSP70 and HSP90 emerging as the leading candidates. However, specimen-dependent and occasionally conflicting associations, small cohorts and assay heterogeneity limit translation. Prospective, adequately powered studies using standardized assays, predefined cut-offs and external validation are required.

Disclosure of interest: *None declared.*

DEPRESSION, POST-TRAUMATIC STRESS, AND QUALITY OF LIFE IN WOMEN WITH GYNECOLOGICAL CANCER: A MULTICENTER CROSS-SECTIONAL STUDY

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Problem statement: Depression, post-traumatic stress disorder (PTSD), and impaired health-related quality of life (HRQoL) often occur together in women with gynecological cancer, yet there is limited data available from Greece. This study aimed to evaluate post-traumatic stress disorder (PTSD) symptoms, depressive symptoms, and quality of life (HRQoL) in women with non-metastatic gynecological cancer in Greece. Additionally, it sought to explore the relationships among these factors and identify any associated influences. ***Methods***: In this multicenter cross-sectional study conducted from May 2024 to March 2025, 128 women aged 35 to 75 years who had undergone surgical treatment for non-metastatic cervical, endometrial, ovarian, or vulvar cancer were consecutively recruited from three public hospitals. Symptoms of post-traumatic stress disorder (PTSD) were evaluated using the Post-traumatic Stress Disorder Checklist for DSM-5 (PCL-5), while depressive symptoms were assessed with the Patient Health Questionnaire-9 (PHQ-9). Quality of life (HRQoL) was measured using the EORTC QLQ-C30 instrument. Non-parametric tests, Spearman correlations, and multiple linear regression (with the PCL-5 total score as the dependent variable) were utilized for the analysis. ***Results***: Mean PCL-5 total score was 13.46 (SD=12.03), and 10.9% met all four post-traumatic stress disorder (PTSD) criteria. The PHQ-9 mean was 6.92 (SD=5.07; mild depression), and QLQ-C30 global health status averaged 60.33 (SD=21.71). PCL-5 and PHQ-9 were strongly correlated ($r=0.639$, $p<0.01$). Higher PHQ-9 and PCL-5 scores were associated with poorer functioning, greater symptom burden, and lower global QoL (r up to 0.807, $p<0.01$). Women with post-traumatic stress disorder did not differ in PHQ-9 scores from those without post-traumatic stress disorder, but had significantly lower global health status ($p=0.034$). In multivariable analysis, only PHQ-9 total ($p < 0.001$) and QLQ-C30 global health status ($p<0.001$) independently predicted PCL-5 scores ($R^2 = 0.709$). ***Conclusion***: In Greek women with non-metastatic gynecological cancer, post-traumatic stress disorder (PTSD) symptoms were generally low but strongly linked to depression and poorer quality of life (HRQoL), with PCL-5 variation largely explained by PHQ-9 and global health status.

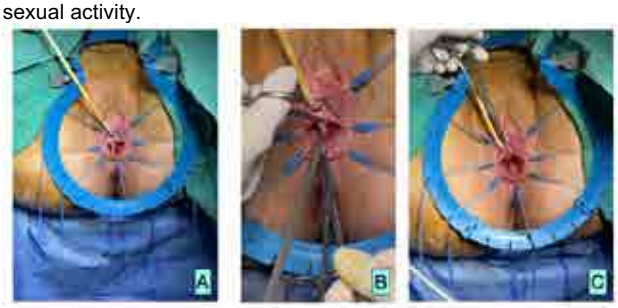
GYNECOLOGY

A NOVEL APPROACH TO MINIMALLY INVASIVE MANAGEMENT OF COMPLETE SEPTATE UTERUS WITH DUPLICATED CERVICES AND NON-OBSTRUCTIVE LONGITUDINAL VAGINAL SEPTUM

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Problem statement: The presence of a complete septate uterus, duplicated cervices, and a non-obstructive longitudinal vaginal septum represents a particularly rare congenital anomaly of the female genital tract, classified as U2bC2V1 according to the 2013 European Society of Human Reproduction and Embryology/European Society of Gynaecological Endoscopy classification system. The prevalence of an isolated uterine septum is estimated at 1%–2% in the general population, but the incidence of the U2bC2V1 phenotype remains unknown because of its extreme rarity and frequent underdiagnosis. This case describes a minimally invasive surgical approach to the treatment of a U2bC2V1 and evaluates operative time and postoperative recovery. ***Methods***: A 20-year-old woman presented with dysmenorrhoea and difficulty with sexual intercourse. Clinical examination, transabdominal ultrasound, and pelvic magnetic resonance imaging (MRI) confirmed the diagnosis. Diagnostic laparoscopy, vaginal septum resection using the HARMONIC™ 1100 Shears ultrasonic device, and hysteroscopic uterine septum resection using a 15-Fr bipolar mini-resectoscope were performed, preserving the duplicated cervices. A Lone Star Retractor Ring with 10 Hooks was used to improve surgical field exposure and maintain symmetrical tension of the vaginal orifice intraoperatively. ***Results***: The Lone Star Retractor Ring with 10 Hooks improved visualisation and access to the upper third of the vagina, which can be difficult in young patients with this anomaly because of the narrow upper vaginal canal. Using HARMONIC™ 1100 Shears, the vaginal septum was incised from its apex toward the cervical plane, in a caudo-cranial direction, enabling precise dissection, rapid transection, secure haemostasis and reduced thermal injury to surrounding tissues. These innovations helped minimise operative time, tissue trauma and scarring, whilst supporting healing. No perioperative or postoperative complications were observed. Follow-up assessments were performed on postoperative days 1, 7, and 30. Sexual intercourse was permitted from 10 days postoperatively following clinical assessment. ***Conclusion***: This case demonstrates a novel minimally invasive approach to the U2bC2V1 Müllerian anomaly. Our new practice improved exposure, haemostasis and easier access to the upper vagina, while facilitating precise dissection and limiting thermal injury. The approach may support faster healing and earlier resumption of sexual activity.



FIBROID EXPULSION AFTER SONATA® TREATMENT MIMICKING ENDOMETRIAL MALIGNANCY: A CASE REPORT

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Problem statement: Uterine fibroids are among the most common benign tumors of the female reproductive tract and may substantially impair quality of life through abnormal uterine bleeding, pain, and anemia. Minimally invasive uterus-preserving treatments have become increasingly important, particularly in women who wish to retain reproductive potential. Fibroid expulsion following transcervical radiofrequency ablation is uncommon and may present a diagnostic challenge when the resulting intracavitary mass resembles malignant disease. ***Methods***: We present the case of a 47-year-old woman who underwent ultrasound-guided transcervical radiofrequency ablation using the Sonata® System for symptomatic uterine fibroids. Ten months after treatment, she presented with fever, lower abdominal pain, and progressively worsening uterine bleeding. Clinical assessment, transvaginal ultrasound, magnetic resonance imaging (MRI), surgical treatment, and histopathological examination were evaluated. ***Results***: Ten months after Sonata® treatment, the patient presented with fever, pelvic pain, and heavy uterine bleeding accompanied by elevated inflammatory markers. Transvaginal ultrasound revealed a large mass occupying the uterine isthmus and protruding into the cervical canal. MRI demonstrated a moderately enlarged multimyomatous uterus and a large intracavitary mass filling and distending the uterine cavity and cervical canal. The differential diagnosis included a large submucosal fibroid with cervical protrusion and endometrial carcinoma extending into the cervix. Because malignancy could not be definitively excluded, hysterectomy was initially discussed. Following antibiotic and analgesic treatment, the acute symptoms resolved. Considering the patient`s wish to preserve her uterus, elective vaginal myomectomy was performed. Histopathological examination confirmed a benign leiomyoma. The postoperative course was uneventful. ***Conclusion***: Fibroid expulsion following Sonata® treatment is uncommon and may occur substantially later than expected. The resulting intracavitary mass can clinically and radiologically mimic endometrial malignancy and create a challenging therapeutic dilemma. Comprehensive imaging and histopathological assessment are essential for accurate diagnosis. In carefully selected patients, uterus-preserving surgical management may provide a safe alternative to hysterectomy, even when malignancy is initially suspected.

Disclosure of interest: *The authors declare no conflict of interest.*

SPONTANEOUS FIBROID EXPULSION AFTER SONATA® TREATMENT: A CASE SERIES OF SIX PATIENTS

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Problem statement: Transcervical radiofrequency ablation using the Sonata® System is an established minimally invasive, uterus-preserving treatment for symptomatic uterine fibroids. Although fibroid expulsion is a recognized potential post-treatment event, available clinical data on patients requiring intervention for expulsion remain limited. We present a case series describing the clinical characteristics and management of six patients with spontaneous fibroid expulsion following Sonata® treatment. ***Methods***: We retrospectively reviewed six patients who experienced spontaneous expulsion of fibroid tissue following ultrasound-guided transcervical radiofrequency ablation with the Sonata® System. Patient demographics, symptoms, fibroid characteristics, including FIGO classification and size, and subsequent management were evaluated. ***Results***: Six women with a mean age of approximately 44 years experienced spontaneous fibroid expulsion following Sonata® treatment. Dysmenorrhea was reported in 50% of patients, while anemia was present in all cases. The treated fibroids ranged from FIGO type II to V, with mean fibroid diameter approximately 4–5 cm. Following expulsion, the clinical presentation and extent of intracavitary fibroid tissue varied between patients. Five of six patients (83%) required hysteroscopic resection for definitive removal of the expelled or partially expelled fibroid tissue. The cases illustrate that fibroid expulsion may result in significant symptoms and require additional surgical management despite the minimally invasive nature of the initial treatment. ***Conclusion***: Spontaneous fibroid expulsion following Sonata® treatment is an uncommon but clinically relevant event that may require subsequent hysteroscopic intervention. In this case series, all patients presented with anemia and most required operative removal of residual intracavitary fibroid tissue. Awareness of this potential outcome is important for appropriate patient counselling, follow-up, and timely management. Further studies are needed to identify clinical and fibroid-related factors associated with an increased risk of expulsion and subsequent intervention.

Disclosure of interest: *The authors declare no conflict of interest.*

DEVELOPMENT OF A RISK PREDICTION MODEL FOR ENDOMETRIAL CANCER IN WOMEN WITH POST MENOPAUSAL BLEEDING USING EPIDEMIOLOGICAL AND SONOGRAPHIC CHARACTERISTICS

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Background: Postmenopausal bleeding (PMB) is a frequent gynaecological presentation. While predominantly caused by benign aetiologies, ruling out malignancies-particularly endometrial carcinoma (EC) - is mandatory. This study evaluated the associations between demographic, clinical, and sonographic variables and endometrial pathology to establish a predictive risk model for EC. ***Methods***: A retrospective study of 241 women presenting with PMB between January and June 2022 was conducted. Following exclusions, 215 patients were analysed for

overall diagnostic distribution, and 203 who underwent endometrial biopsy were evaluated for specific endometrial pathology. Clinical variables and endometrial thickness (ET) were analysed using the Mann–Whitney U test, Chi-Square test, or Fisher's exact test. Multivariable logistic regression was performed on a training dataset ( ) to derive a risk-scoring model, which was subsequently validated on a test dataset. ***Results***: Malignancy was identified in 40 patients (18.6%), comprising EC (70%,), cervical carcinoma (,), ovarian carcinoma (,), extramammary Paget's disease (,), and renal cell carcinoma (,). Benign conditions accounted for 81.4% of cases, with endometrial/endocervical polyps being the most frequent (29.6%). Age years ( ), ET ( ), and intra-endometrial vascularity ( ) were significantly associated with EC. An integer risk score model was constructed:
Using a Youden index-derived cutoff score of , the model achieved a sensitivity of 75.0%, specificity of 75.0%, positive predictive value (PPV) of 46.0%, negative predictive value (NPV) of 91.0%, and an area under the receiver operating characteristic curve (AUC-ROC) of 0.75 on the validation set. ***Conclusion***: A risk scoring threshold of effectively stratifies women presenting with PMB to identify those requiring urgent invasive diagnostic biopsy, balancing diagnostic sensitivity while minimizing unneeded invasive procedures.

CHEMOKINE PROFILE INDICATORS IN WOMEN WITH VARIOUS CLINICAL MANIFESTATIONS OF ADENOMYOSIS

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Problem statement: Adenomyosis is a gynecological disease characterized by the penetration of endometrioid tissue into the myometrium and manifested by dysmenorrhea, chronic pelvic pain and menorrhagia. ***Methods***: To assess the levels of chemokines MCP-1, IL-8, IP-10 and RANTES in women with adenomyosis and determine their relationship with the clinical manifestations of the disease. The study included 58 women of reproductive age, aged 25 to 45 years. The study group consisted of 36 patients with adenomyosis, diagnosed based on clinical findings and pelvic ultrasound. The control group consisted of 22 apparently healthy women, matched for age and with no signs of gynecological pathology. The levels of chemokines were determined in the blood serum using the ELISA method. ***Results***: Chemokine profile analysis revealed significant differences between the study groups. In patients with adenomyosis, MCP-1 levels were 246.54±21.41 pg/ml, while in the control group, this indicator did not exceed 158.32±17.27 pg/ml ($p<0.01$). The concentration of IL-8 in women of the main group reached 41.79±4.25 pg/ml, while in the control group it was 23.61±3.19 pg/ml, which indicates an increase of 1.8 times ($p<0.01$). The IP-10 level was also increased and amounted to 372.85±29.62 pg/ml, while in healthy women it was 248.43±24.54 pg/ml ($p<0.01$). The most pronounced changes were observed in relation to RANTES, the concentration of which in patients with adenomyosis reached 59.37±5.41 ng/ml, while in the control group this indicator was 37.83±4.15 ng/ml, which corresponded to an increase of approximately 1.6 times ($p<0.01$). The identified changes were accompanied by clinical features of the disease. Patients with larger uterine volumes had higher RANTES levels. Correlation analysis revealed a positive association between RANTES levels and uterine volume ($r=0.51$; $p<0.05$). Furthermore, a negative correlation was found between IL-8 levels and hemoglobin concentrations ($r=-0.47$; $p<0.05$), which may reflect a link between inflammatory processes and the development of menorrhagia and anemia. ***Conclusion***: The obtained data suggest a possible role for chemokine imbalance in the development and maintenance of the pathological process associated with adenomyosis. The association of chemokines with clinical manifestations allows them to be considered potential biological markers of the activity and progression of adenomyosis.

FEATURES OF PRO-INFLAMMATORY CYTOKINE SYNTHESIS IN WOMEN WITH UTERINE LEIOMYOMA

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Problem statement: Uterine leiomyoma is a benign monoclonal tumor arising from the mutation of a single smooth muscle cell of the myometrium, resulting in uncontrolled cellular proliferation. Increasing evidence suggests that inflammatory and immune-mediated mechanisms contribute to the development and progression of uterine leiomyoma. This study aimed to evaluate serum levels of selected cytokines in women of reproductive age with uterine leiomyoma and to determine their association with tumor growth rate. ***Methods***: The study included 123 women of reproductive age with uterine leiomyoma (mean age 31.3 ± 0.51 years). Sixty-five patients had conventional leiomyoma, while 58 women had rapidly growing leiomyoma. The control group consisted of 30 healthy age-matched women. Serum concentrations of interleukin (IL)-1β, IL-2, transforming growth factor (TGF)-β2, and monocyte chemoattractant protein (MCP)-1 were measured using enzyme-linked immunosorbent assay. ***Results***: Women with conventional leiomyoma demonstrated a threefold increase in IL-1β levels compared with controls ($P<0.001$). In patients with rapidly growing leiomyoma, IL-1β levels were elevated 1.73-fold ($P<0.01$). Moreover, IL-1β concentrations were significantly higher in women with conventional leiomyoma than in those with rapidly growing tumors ($P<0.05$). Serum IL-2 levels were reduced in both leiomyoma groups regardless of tumor growth rate. TGF-β2 concentrations were 1.6 times higher in women with conventional leiomyoma than in controls ($P<0.01$). In rapidly growing leiomyoma, TGF-β2 levels were increased 1.9-fold compared with controls ($P<0.001$) and were 1.2 times higher than in women with conventional leiomyoma ($P<0.05$). MCP-1 levels exceeded control values by 2.5-fold in women with conventional leiomyoma ($P<0.01$) and by 3.3-fold in women with rapidly growing leiomyoma ($P<0.001$). ***Conclusion***: The growth of uterine leiomyoma is associated with significant alterations in cytokine production. Elevated levels of IL-1β, TGF-β2, and MCP-1, together with reduced IL-2 concentrations, indicate the involvement of inflammatory and immune regulatory mechanisms in leiomyoma pathogenesis. The observed cytokine imbalance is more pronounced in rapidly growing tumors and may contribute to disease progression.

BRINGING ERAS TO THE OFFICE: A MULTIMODAL ANALGESIA AND SIX-POINT CERVICAL BLOCK PROTOCOL ACHIEVING NEAR-PAINLESS OPERATIVE HYSTEROSCOPY WITHOUT ANESTHESIA

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Problem statement: Office hysteroscopy avoids general anesthesia, operating room utilization, and facility cost, yet procedural pain remains the leading cause of patient refusal, incomplete procedures, and conversion to the operating room. Enhanced recovery after surgery (ERAS) protocols are established for inpatient gynecologic surgery but have not been systematically adapted to the office setting. We evaluated a structured office-based ERAS pathway for operative hysteroscopy. ***Methods***: A standardized ERAS pathway was applied to 947 consecutive office hysteroscopic procedures. Patients drank 20 ounces of an electrolyte beverage the night before, then received oral misoprostol 200 micrograms 4 hours, oral acetaminophen 1 gram 1 hour, and intramuscular ketorolac 15 milligrams before the procedure. All received a six-point cervical block at 5, 7, 3, and 9 o'clock and the anterior cervical lip, using buffered 1% lidocaine 5 milliliters (mL), bupivacaine 5 mL, and sodium bicarbonate 2 mL. Pain was scored 0–10 intraprocedurally and again after a 10-minute warm pelvic compress. ***Results***: Mean age was 45.1 years (standard deviation 11.1; range 19–85). Procedures were endometrial biopsy 40%, polypectomy 38%, uterine septum resection 10%, diagnostic hysteroscopy alone 7%, and impacted

intrauterine device removal 5%. During the procedure, 93% of patients reported no pain, 5% reported a score of 2, and 2% reported a score of 3–5; none exceeded 5. All 947 procedures were completed in the office, with no aborted cases, no conversions, and no complications. Mean procedure time was 10 minutes. ***Conclusion***: A structured office ERAS protocol combining oral hydration, cervical priming, scheduled multimodal analgesia, a six-point buffered cervical block, and post-procedure warm compression delivered near-painless operative hysteroscopy with a 100% completion rate and no complications. This removes the cost, recovery time, and physiologic risk of general anesthesia and is reproducible in any office equipped for hysteroscopy. Wider adoption could meaningfully expand access to hysteroscopic surgery.

PATHOLOGICAL CONCORDANCE BETWEEN ENDOMETRIAL SAMPLING METHODS AND HYSTERECTOMY: INFLUENCE OF VAGINAL DELIVERY AND CLINICAL FACTORS

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Problem statement: In this study, we aimed to investigate the rate of pathological discrepancies between endometrial sampling (Pipelle biopsy or dilatation and curettage [D&C]) and hysterectomy and evaluate the consistency of endometrial sampling with hysterectomy pathology. ***Methods***: This single-center, retrospective study involved women who underwent endometrial sampling followed by hysterectomy at Severance Hospital, Korea, between January 1, 2015, and October 31, 2025. Overall, 154 participants were enrolled, comprising 128 who underwent Pipelle biopsies and 26 who underwent D&C. Pathology results from endometrial sampling were compared with the final pathology after hysterectomy, and discrepancies were reported as numbers and percentages (%). ***Results***: Among the 128 women who underwent Pipelle biopsy, 18 (14.06%) demonstrated a pathological discrepancy between biopsy and hysterectomy results. Of the 26 women who underwent D&C, 2 (7.69%) demonstrated discrepancies. Univariable logistic regression analysis revealed that having more than two vaginal deliveries was associated with a significantly lower risk of pathological discrepancy than having no vaginal delivery (odds ratio = 0.30; P = 0.026). In women with known endometrial intraepithelial neoplasia (EIN), abnormal sonography findings without abnormal uterine bleeding (AUB) were associated with a significantly lower risk of pathological discrepancy than having AUB with abnormal sonography findings (odds ratio = 0.03; P = 0.013). ***Conclusion***: The diagnostic accuracy of Pipelle biopsy and D&C was found to be similar. Women with more than two vaginal deliveries exhibited lower rates of pathological discrepancy. In women with EIN, those with abnormal sonography findings without AUB had lower rates of pathological discrepancy.
Disclosure of interest: *None.*



Figure 1. Flowchart of study participants.

ENDOMETRIAL RECEPTIVITY IN YOUNG WOMEN WITH CHRONIC ENDOMETRITIS AND ADVANCED REPRODUCTIVE AGE: ROLE OF PERSONALIZED PREPARATION

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Problem statement: Endometrial receptivity is essential for successful embryo implantation. Leukemia inhibitory factor (LIF) is an important molecular marker of endometrial receptivity, and reduced LIF expression is associated with impaired implantation. Chronic endometritis in young women may not impair receptivity when LIF expression is preserved, whereas age-related endometrial changes may be associated with reduced LIF expression and implantation potential. This study aimed to evaluate personalized endometrial preparation in women of advanced reproductive age with signs of functional aging and reduced LIF expression compared with young women with chronic endometritis and preserved receptivity. ***Methods***: Patients were divided into two groups according to age and LIF expression. Group 1 included women aged <38 years with chronic endometritis and preserved endometrial receptivity who underwent standard endometrial preparation. Group 2 included women aged ≥38 years with reduced LIF expression who received personalized preparation comprising hormonal correction, senolytic support, and local treatment with tissue biomodulators. A single euploid blastocyst was transferred in all participants. Clinical pregnancy rate was assessed as the primary measure of effectiveness. ***Results***: The groups were comparable regarding infertility duration, body mass index, reproductive history, and number of previous implantation failures. Endometrial thickness, estradiol levels, and embryo transfer day did not differ significantly. Following personalized preparation, LIF expression was comparable between groups (p=0.658). Clinical pregnancy rates were 55.6% in Group 1 and 63.6% in Group 2, with no significant difference between groups (p=0.43). ***Conclusion***: Personalized endometrial preparation in women of advanced reproductive age with signs of functional aging and initially reduced LIF expression was associated with clinical pregnancy rates comparable to those observed in younger women with chronic endometritis and preserved receptivity. These findings support the potential value of molecular assessment of endometrial receptivity when selecting an individualized implantation preparation strategy.
Disclosure of interest: *The authors declare no conflict of interest.*

CLINICAL AND BIOCHEMICAL DIFFERENCES BETWEEN ADOLESCENTS WITH PCOS AND HEALTHY AGE-MATCHED CONTROLS

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Problem statement: Polycystic ovary syndrome (PCOS) is the most common endocrine disorder affecting women of reproductive age. The first clinical manifestations typically appear during adolescence, and 1.14%–3% of adolescent girls develop the full clinical phenotype and meet the diagnostic criteria for PCOS. Adolescents with PCOS are at increased risk of developing cardiovascular disease later in life. The aim of this study was to identify the clinical and biochemical differences between adolescents with PCOS and healthy controls and to evaluate the presence of dyslipidemia, a well-recognized and common metabolic abnormality in women with PCOS. ***Methods***: The study included 35 adolescents up to 19 years of age who met all three Rotterdam diagnostic criteria for PCOS for at least two years after menarche and 17 healthy controls matched for age and body mass index. Clinical assessment, biochemical analyses, and hormonal assessments were performed. Statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS), version 17.0. ***Results***: The age at menarche among participants ranged from 9.5 to 14 years, with no significant difference between groups (p=0.221). All participants in the control group had menstrual cycle lengths ranging from 21 to 35 days, whereas adolescents with PCOS had significantly longer menstrual cycles, ranging from 4 to 12 months (p<0.001). Girls in the control group significantly more frequently reported painful uterine bleeding (p<0.001). Facial and back acne were significantly more prevalent among patients with

PCOS (p<0.001), and the Ferriman–Gallwey (F-G) score was also significantly higher in the PCOS group (p<0.001). The LDL/HDL ratio, fibrinogen, and high-sensitivity C-reactive protein (hs-CRP) levels were significantly higher in the group of adolescents with PCOS (p<0.001). ***Conclusion***: Compared with healthy controls, adolescents with PCOS had significantly more pronounced menstrual cycle disturbances, a higher prevalence of acne and hirsutism, alterations in lipid metabolism as well as elevated inflammatory biomarkers including hs-CRP and fibrinogen. Therefore, even among normal-weight adolescents with PCOS, it is necessary to promote healthy lifestyle interventions to improve lipid profile characteristics and prevent or manage dyslipidemia.
The authors declare no conflicts of interest.

ENDOMETRIOSIS IN ADOLESCENCE: SURGICAL MANAGEMENT AND THE BALANCE BETWEEN DISEASE CONTROL, SURGICAL RADICALITY AND FERTILITY PRESERVATION

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Introduction: Although the prevalence of endometriosis among adolescents is unknown, the disease is rare in the general adolescent population but considerably more common among adolescents with chronic pelvic pain. Therefore, endometriosis in adolescence represents a particular diagnostic and therapeutic challenge, especially in patients with large endometriomas and extensive pelvic adhesions. ***Case Presentation***: An 18-year-old patient presented with several months of pelvic pain. The pain was not associated with the menstrual cycle, and acute surgical pathology was excluded on examination. Pelvic ultrasound revealed a cystic lesion in the region of the left ovary, measuring 80 × 70 × 75 mm, with septations and hemorrhagic content, while the uterus and right ovary appeared normal. CA-125 levels were elevated, whereas testing for sexually transmitted infections was negative. Pelvic magnetic resonance imaging described an endometriotic cyst of the left ovary of similar dimensions. During surgery, extensive pelvic adhesions were observed. The left fallopian tube was firmly adherent to the left ovary, encasing it and practically dividing the ovary into two parts. The ovary itself was densely adherent to the posterior uterine wall and the broad ligament. Following careful intraoperative assessment, ovarian-sparing cystectomy was considered technically extremely challenging, with a high risk of cyst rupture, further damage to the remaining ovarian tissue, and incomplete dissection due to severely distorted pelvic anatomy. Although ovarian preservation was the initial surgical goal, a left salpingo-oophorectomy was ultimately performed, followed by extensive pelvic irrigation. Histopathological examination confirmed a left ovarian endometrioma. Postoperatively, dienogest was initiated for long-term suppression of disease activity. ***Conclusion***: Surgical management of endometriosis in adolescents requires a careful balance between disease control, operative safety, and preservation of ovarian function and future fertility. However, this case demonstrates that a fertility-sparing approach to endometriosis in adolescence does not imply preserving the ovary at all costs. Rather, the goal is to preserve the patient's overall reproductive potential while minimizing the impact on her health. Therefore, removal of a severely compromised ovary may, in selected cases, represent a considered fertility-sparing decision when attempting ovarian preservation would carry a greater risk than potential benefit.
The authors declare no conflicts of interest.

FROM HEAVY MENSTRUAL BLEEDING TO BLOOD TRANSFUSION: A CASE SERIES OF SEVERE ADOLESCENT ABNORMAL UTERINE BLEEDING

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Problem statement: Abnormal uterine bleeding (AUB) is common during adolescence, predominantly due to immaturity of the hypothalamic–pituitary–ovarian axis and consequent ovulatory dysfunction. However, delayed recognition of heavy and prolonged bleeding may result in severe anemia, hemodynamic compromise, and the need for blood transfusion. This study aimed to describe the clinical characteristics, management, and short-term outcomes of adolescents hospitalized with severe AUB requiring transfusion. ***Methods***: We conducted a retrospective descriptive case series of six adolescents hospitalized at a tertiary pediatric and adolescent gynecology department between March 2025 and February 2026. Data regarding age, clinical presentation, laboratory and ultrasonographic findings, treatment, and outcomes were extracted from medical records. Only patients who received packed red blood cell transfusion for anemia caused by AUB were included. ***Results***: The patients were aged 11–13 years. The median hemoglobin concentration at admission was 67 g/L (range 62–87), increasing to 91.5 g/L (range 74–107) at discharge. A total of seven packed red blood cell units were administered: five patients received one unit and one received two units. Basic coagulation screening was normal in all patients, while pelvic ultrasonography revealed no persistent structural uterine pathology. Bleeding was successfully controlled using conservative management in all patients. Five received hormonal hemostatic therapy: four were treated with progestins and one with a combined oral contraceptive. Tranexamic acid use was documented in one patient. None required uterine curettage, hysteroscopy, or another invasive hemostatic procedure. All patients were discharged in good general condition, while one was subsequently lost to follow-up. ***Conclusion***: Severe AUB during adolescence may cause profound anemia requiring transfusion, even in the absence of structural uterine pathology or abnormalities in basic coagulation screening. Early recognition and treatment of heavy menstrual bleeding are essential to prevent severe anemia and reduce the need for transfusion, which, although potentially life-saving, carries risks of adverse reactions and subsequent alloimmunization. Individualized medical therapy can provide effective hemostasis while avoiding invasive procedures. Standardized evaluation for underlying bleeding disorders and structured follow-up are necessary to determine etiology and prevent recurrence.
The authors declare no conflicts of interest.

UTERUS DIDELPHYS ASSOCIATED WITH OBSTRUCTIVE VAGINAL ANOMALIES AND ANORECTAL MALFORMATIONS: A CASE REPORT

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Introduction: Uterus didelphys is one of the rarest Müllerian duct anomalies, accounting for approximately 10% of all Müllerian anomalies. It results from incomplete fusion of the paired Müllerian ducts and is often associated with duplication of the cervix and, in most cases, a longitudinal vaginal septum. The diagnosis is most commonly established during adolescence using ultrasonography and magnetic resonance imaging (MRI) of the pelvis. ***Case Report***: A 13-year-old girl was admitted to our institution with pelvic pain, which had occurred intermittently even before menarche, which began at the age of 12. Due to anal atresia, the patient had previously undergone posterior sagittal anorectoplasty (PSARP) following colostomy. During the gynecological examination, the vagina could not be catheterized. The perineum was flat, and prolapse of the anal sphincter was present. Pelvic ultrasonography revealed two uteri, each measuring 58 × 35 × 45 mm, with an endometrial thickness of 21 mm in both uteri. Magnetic resonance imaging (MRI) confirmed uterus didelphys with two cervices and two vaginal canals. Both vaginas and cervices were distended and filled with thick fluid. The left vagina had a small introitus, whereas no external opening was identified on the right side, with suspected communication between the vaginas in the caudal portion of the vaginal septum. A perianal intersphincteric fistula was also identified. Cystovaginoscopy revealed chronic inflammatory changes of the urinary bladder wall. Vaginoscopy demonstrated two vaginal canals separated by a septum extending from the fornix to approximately 1 cm above the introitus. During the procedure, a seton was placed through the anal intersphincteric fistula to facilitate its closure. The seton was removed four months later. Six months later, resection of the vaginal septum was performed. ***Conclusion***: Uterus didelphys associated with obstructive vaginal

anomalies and anorectal malformations represents a rare and complex clinical condition that may remain undiagnosed until adolescence. Accurate assessment of the anatomical relationships using ultrasonography and MRI is essential for establishing the diagnosis and planning individualized treatment. In our patient, resection of the vaginal septum resulted in complete resolution of symptoms and an uneventful postoperative recovery.
The authors declare no conflicts of interest.

RE-EVALUATING THE UTILITY OF SUBENDOMETRIAL ENHANCEMENT IN ASSESSING THE ENDOMETRIAL-MYOMETRIAL INTERFACE ON DYNAMIC CONTRAST-ENHANCED MRI

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Problem statement: This study aimed to re-evaluate the utility of subendometrial enhancement (SEE) on dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) in assessing the interface between the endometrium and myometrium. ***Methods***: In total, 110 women who underwent pelvic MRI for non-endometrial gynecologic diseases were prospectively enrolled. Two radiologists independently evaluated the presence or absence of SEE on DCE-MRI. A subgroup analysis was performed to assess the influence of menstrual status on SEE detection. Identified areas of SEE were rated using a 4-point Likert scale to determine their reliability in evaluating the endometrial-myometrial interface. ***Results***: SEE was identified in 44.5% (49/110) of cases by Radiologist 1 and 39.1% (43/110) by Radiologist 2. Subgroup analysis showed no significant difference in SEE detection based on menstrual status. The identified SEE areas were deemed reliable for evaluating the endometrial-myometrial interface in 24.5% (12/49) of cases by Radiologist 1 and 32.6% (14/43) by Radiologist 2. Overall, reliable SEE for assessing the interface was observed in only 10.9% (12/110) and 12.7% (14/110) of all subjects by Radiologists 1 and 2, respectively. ***Conclusion***: The evaluation of SEE using dynamic CE-MRI has limited reliability and utility in assessing the interface between the endometrium and myometrium.

IMMUNOLOGICAL FEATURES OF ENDOMETRIOSIS-ASSOCIATED INFERTILITY

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Background: The mechanisms of endometriosis-associated infertility remain incompletely understood, with growing evidence pointing to immune dysregulation. However, the role of immune cell markers in this condition requires further investigation. ***Objective***: To evaluate the relationship between lymphocyte subpopulations ($CD16^+$, $CD25^+$, $CD95^+$) and hormonal profile in women with endometriosis-associated infertility. ***Materials and methods***: The study included 56 women aged 23–42 years: 34 patients with endometriosis-associated infertility and 22 healthy controls. Lymphocyte subpopulations ($CD16^+$, $CD25^+$, $CD95^+$) were analyzed in peripheral blood by flow cytometry. Serum levels of estradiol, progesterone, and anti-Müllerian hormone (AMH) were measured using ELISA. ***Results***: Patients with endometriosis-associated infertility demonstrated significantly higher estradiol levels (212.61 ± 18.4 pg/mL vs. 167.34 ± 15.1 pg/mL; $p < 0.05$) and lower progesterone (9.43 ± 0.8 ng/mL vs. 12.75 ± 1.1 ng/mL; $p < 0.05$) and AMH levels (2.17 ± 0.3 ng/mL vs. 3.49 ± 0.4 ng/mL; $p < 0.05$) compared to controls. Immunological analysis showed increased proportions of $CD16^+$ (28.72 ± 1.6% vs. 17.43 ± 1.2%; $p < 0.01$), $CD25^+$ (24.28 ± 1.3% vs. 19.63 ± 0.9%; $p < 0.01$), and $CD95^+$ lymphocytes (37.51 ± 2.1% vs. 19.84 ± 1.7%; $p < 0.01$) in the main group. Correlation analysis revealed a negative association between progesterone levels and $CD16^+$ cells ($r = -0.48$; $p < 0.05$), and a positive correlation between estradiol and $CD25^+$ lymphocytes ($r = 0.52$; $p < 0.05$). ***Conclusion***: Endometriosis-associated infertility is characterized by hormonal imbalance and immune alterations, including increased $CD16^+$, $CD25^+$, and $CD95^+$ lymphocyte subpopulations. The observed correlations suggest an interaction between hormonal and immune factors in the pathogenesis of infertility. These parameters may serve as potential biomarkers of immune involvement in endometriosis-associated reproductive dysfunction.

IMPROVING MENOPAUSE CARE THROUGH A STRUCTURED HISTORY-TAKING PROFORMA: A QUALITY IMPROVEMENT PROJECT

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Problem statement: Menopause consultations require comprehensive assessment of symptoms, quality-of-life impact, risk factors, treatment suitability and red-flag symptoms. In our menopause clinic, history-taking was time-consuming and documentation was inconsistent, contributing to prolonged consultations and variable completion of key clinical domains. This quality improvement project evaluated whether a structured pre-consultation history questionnaire and clinician proforma could improve consultation efficiency, completeness of assessment and patient experience. ***Methods***: A baseline audit of 50 consecutive menopause consultations was undertaken from January to April 2025. Measures included total consultation time, time spent on history-taking, completion of key history elements, red-flag documentation, lifestyle advice, patient understanding, patient satisfaction and clinician-reported efficiency. A standardised patient-completed pre-consultation questionnaire and structured clinician proforma were then introduced, incorporating red-flag screening, guidance on unscheduled bleeding during hormone replacement therapy and patient education resources. Fifty further consultations were assessed from May to October 2025 using the same measures. ***Results***: Average consultation time decreased from 23.6 to 18.4 minutes, while average history-taking time decreased from 14.2 to 9.1 minutes. Consultations documenting at least 80% of key history elements increased from 44% to 86%, and consultations missing two or more key elements fell from 58% to 16%. Red-flag documentation improved from 90% to 100%, documentation of quality-of-life or symptom severity from 38% to 78%, and lifestyle advice from 34% to 72%. Patient-reported good/very good understanding increased from 46% to 76%, satisfaction from 68% to 84%, and clinician-reported good/very good efficiency from 28% to 74%. The proportion reporting waiting times as too long decreased from 40% to 22%. Questionnaire completion and consistent proforma use were 88% and 82%, respectively. ***Conclusion***: A structured menopause history-taking questionnaire and clinical proforma improved consultation efficiency, documentation completeness, patient understanding and satisfaction, and clinician-reported efficiency. The intervention was feasible and low-cost, with future improvement cycles focusing on digitalisation, staff induction and sustained uptake.

EFFECTS OF EVENING PRIMROSE OIL ON MENOPAUSAL HOT FLASHES: A DOUBLE-BLIND RANDOMIZED CONTROLLED TRIAL IN A PRIVATE TERTIARY HOSPITAL

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Problem statement: Hormone therapy remains the standard of care for menopausal vasomotor symptoms like hot flashes, which cannot be safely given to all since certain groups can be predisposed to some health risks. Evening primrose oil (EPO), categorized under phytoestrogens, has been studied in alleviating these symptoms by mimicking the action of estrogen, thereby improving hot flashes and other vasomotor symptoms. This study aims to determine whether or not EPO relieves menopausal hot flashes; to determine clinical factors that influence treatment response to EPO and its impact on the overall quality of life. ***Methods***: In this randomized double-blind clinical trial, a total of 62 evaluable patients and employees in a private tertiary hospital were given evening primrose oil (EPO) or a placebo per orem once a day for 3 consecutive months. Standard questionnaires were completed at 30 days interval. Student's t-test and Chi-square test were used to analyze the results. ***Results***: There was an observed overall decrease (-0.65±0.7549 vs. 0.03±0.6575; $p < 0.000813$) in the severity of hot flashes in the EPO group compared to the control, and the majority of the favorable changes were observed in the first two months of EPO supplementation. The sample size failed to demonstrate a measurable impact on the quality of life, but the trend is towards improvement. ***Conclusion***: Supplementation with EPO

decreases the severity of hot flashes associated with menopause. The favorable effect is most likely experienced during the first 60 days of supplementation, which establishes a trend towards better quality of life.

Disclosure of interest: *The study medication (evening primrose oil capsules) was supplied by a pharmaceutical company. The sponsor had no role in the study design, data collection, data analysis, manuscript preparation, or the decision to submit the abstract. The authors declare no other conflicts of interest.*

AN ULCERATED VULVAL MASS IS NOT ALWAYS MALIGNANT: AN UNUSUAL CASE

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Problem statement: A 72-year-old menopausal, nulligravid woman presented with an eight-month history of progressive right vulval swelling that evolved into a painful, ulcerated, blood-stained lesion over the preceding two weeks. She had no antecedent vaginal discharge, itch, postcoital or postmenopausal bleeding. Her background included hemodialysis-dependent end-stage renal failure from diabetic nephropathy, ischaemic heart disease, a basal ganglia infarct with full recovery, hypothyroidism, and osteoporosis. Nine months earlier she had presented with right thigh pain and reduced mobility. MRI had shown a right inferior pubic ramus fracture with a 9 x 5 x 4.5 cm adductor haematoma. Pain resolved and mobilty was restored with analgesia and physiotherapy. On examination her BMI was 18. She had a soft, non-organomegalic abdomen. The right labia majora had a 5 x 4 cm exophytic, indurated, ulcerated mass with blood-stained discharge. There were no other vulval lesions or palpable inguinal nodes, and vaginal and pelvic examination was otherwise unremarkable for age. Punch biopsies showed epidermal ulceration, granulation tissue, and acute-on-chronic inflammation with tissue necrosis, without pagetoid spread, dysplasia, or malignancy. Wound culture grew MSSA, and was treated with two weeks of amoxicillin and clauvilinic acid after infectious diseases review. Screens for gonorrhoea, chlamydia, herpes simplex, HIV, and syphilis were negative. CT abdomen/pelvis revealed a rim-enhancing hypodense collection in the right adductor compartment, extending across the fractured pubic ramus via a sinus tract to the vulval skin and posteriorly to the obturator internus, consistent with an infected haematoma. Follow-up MRI showed interval resolution. She improved clinically and the mass resolved with minimal skin residual scarring. ***Discussion***: Osteoporosis, advanced age, and dialysis-dependent renal failure predisposed to a low-trauma pubic ramus insufficiency fracture, with bleeding into the adjacent adductor muscle tracking into perineal and vulval soft-tissue planes, producing swelling, ulceration, and fungation that clinically mimicked vulval malignancy. The MRI finding of a haematoma contiguous with the fracture was key to establishing this anatomical link between two apparently unrelated findings. ***Conclusion***: A vulval mass may not originate from the vulva. Pelvic pathology can track along adjacent soft-tissue planes to present as a vulval lesion, and this possibility should be considered before assuming malignancy.



A SYSTEMATIC REVIEW AND META-ANALYSIS ON THE EFFECTIVENESS AND SAFETY OF THE TOURNIQUET VASCULAR OCCLUSION METHOD FOR THE REDUCTION OF BLOOD LOSS DURING ABDOMINAL MYOMECTOMY

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Problem statement: Uterine fibroids are the most common benign gynecologic tumors that may require surgery and are complicated by excessive blood loss. Hence, intervention to reduce blood loss is essential in evidence-based clinical practice. This study aimed to evaluate the effectiveness and safety of the tourniquet method, particularly in minimizing blood loss and reducing the need for blood transfusions during abdominal myomectomy. ***Methods***: The study followed the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. A comprehensive search of major databases was conducted from inception to March 15, 2026, without language restrictions. Randomized controlled trials (RCTs) comparing the tourniquet method with no tourniquet during abdominal myomectomy were included. Authors and an external reviewer independently assessed the risk of bias. Primary outcomes were blood loss (ml) and need for blood transfusion. Secondary outcomes were operative duration, postoperative complications of fever and anemia, and anti-Mullerian hormone (AMH) level. Outcomes were measured as mean differences (MD) and risk ratios (RR), both with 95% confidence intervals (CI). Quality of evidence assessed using the GRADE approach. ***Results***: Three RCTs involving 205 participants from in-hospital settings in low-to middle-income countries were included. The tourniquet group had a significant reduction of blood loss with MD -287.29, [CI:95% -439.76, -134.82]. The overall effects of the tourniquet method in reducing the need for blood transfusion and decreasing the duration of surgery were also statistically significant. No significant differences were observed in postoperative fever, anemia, or AMH levels between groups. ***Conclusions***: This study provides moderate-quality evidence of reduced blood loss and high-quality evidence of reduced blood transfusions with the tourniquet method in abdominal myomectomy. Evidence regarding perioperative complications, particularly fever and anemia, remains inconclusive and not significantly evident. Anti-Mullerian hormone levels were not affected by the tourniquet method, with high-quality evidence.

VAGINAL NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY VERSUS LAPAROSCOPIC HYSTERECTOMY: A SYSTEMATIC REVIEW OF CURRENT EVIDENCE

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Problem statement: Vaginal natural orifice transluminal endoscopic surgery (vNOTES) and conventional laparoscopy are minimally invasive approaches to hysterectomy for benign gynaecological disease. Both aim to reduce tissue injury and postoperative morbidity, but their comparative safety and effectiveness remain uncertain. This systematic review and meta-analysis evaluated perioperative outcomes of vNOTES hysterectomy compared with conventional non-robotic laparoscopic hysterectomy. ***Methods***: Scopus, MEDLINE, and the Cochrane Library were searched from database inception to 1 st of March 2026. Randomised controlled trials and observational comparative studies involving women undergoing hysterectomy for benign gynaecological disease were eligible. ***Results***: Twenty studies involving 2,775 eligible patients, comprising 884 vNOTES and 1,891 laparoscopic hysterectomies. vNOTES was associated with shorter operative time and hospital stay, lower visual analogue scale pain scores on postoperative day 1, fewer postoperative and fewer blood transfusions. No significant differences were found in estimated blood loss, haemoglobin reduction, postoperative analgesic requirements, conversion to another surgical technique or intraoperative complications. ***Conclusion***: vNOTES hysterectomy may offer advantages over conventional laparoscopy for benign indications, particularly shorter recovery-related

outcomes and fewer postoperative complications. Interpretation should remain cautious because most included studies were retrospective and substantial heterogeneity affected several outcomes. Further prospective multicentre randomised trials are required.
***Disclosure of interest**: The authors declare no conflicts of interest.*

CLINICAL AND HEMATOLOGIC DETERMINANTS OF BLOOD VISCOSITY IN WOMEN UNDERGOING GYNECOLOGIC SURGERY

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Background: Blood viscosity is an important hemorheological parameter associated with thromboembolic, cardiovascular, and metabolic diseases. Preoperative risk assessment is essential in women undergoing gynecologic surgery. Whole blood viscosity may provide additional information for perioperative risk assessment and potential postoperative risk stratification. However, factors associated with blood viscosity in women undergoing gynecologic surgery remain unclear. This study aimed to identify clinical and laboratory factors independently associated with blood viscosity in this population. ***Methods***: We retrospectively reviewed 253 women who underwent routine preoperative evaluation before gynecologic surgery at Incheon St. Mary`s Hospital between February and May 2026. Whole blood viscosity was measured as systolic blood viscosity (SBV) and diastolic blood viscosity (DBV). Clinical and laboratory variables, including age, body mass index (BMI), menopausal status, smoking, alcohol consumption, hypertension, diabetes mellitus, dyslipidemia, endometriosis, gynecologic malignancy, hematocrit (Hct), platelet count, and total cholesterol, were collected. Multivariable linear regression analyses were performed to identify factors independently associated with SBV and DBV. Logistic regression analyses evaluated factors associated with high SBV (≥35.9 cP) and high DBV (≥111.4 cP). ***Results***: Higher BMI (β=0.245, P<0.001), alcohol consumption (β=1.234, P=0.034), Hct (β=0.871, P<0.001), and platelet count (β=0.009, P=0.011) were independently associated with higher SBV. Similar associations were observed for DBV, with higher BMI (β=0.618, P=0.005), alcohol consumption (β=4.023, P=0.011), Hct (β=3.396, P<0.001), and platelet count (β=0.037, P=0.007) independently associated with higher DBV. Gynecologic malignancy was additionally associated with higher DBV (β=7.746, P=0.037). Higher Hct was independently associated with both high SBV and high DBV. Menopausal status, endometriosis, dyslipidemia, total cholesterol, and other gynecologic characteristics were not independently associated with blood viscosity. ***Conclusions***: Blood viscosity was independently associated with hematologic and metabolic factors, particularly Hct, BMI, alcohol consumption, and platelet count, rather than most gynecologic characteristics. Hct showed a consistent association with both SBV and DBV. These findings suggest that preoperative blood viscosity may provide additional information for perioperative risk assessment and may have potential utility for postoperative risk stratification. However, postoperative clinical outcomes were not evaluated, and prospective studies incorporating postoperative outcomes are warranted.

LONG-TERM CHANGES IN UTERINE VOLUME AND CLINICAL OUTCOMES AFTER LNG-IUS INSERTION IN PERIMENOPAUSAL WOMEN WITH ADENOMYOSIS

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Problem statement: Adenomyosis is a benign gynecologic condition characterized by uterine enlargement and symptoms such as heavy menstrual bleeding and dysmenorrhea. In perimenopausal women, uterine-sparing treatment options are often preferred. The levonorgestrel-releasing intrauterine system (LNG-IUS) is widely used; however, long-term changes in uterine volume and the role of GnRH agonist pretreatment remain unclear. To evaluate long-term changes in uterine volume and clinical outcomes in perimenopausal women with adenomyosis treated with LNG-IUS, and to assess the impact of GnRH agonist pretreatment. ***Methods***: This retrospective cohort study included 72 perimenopausal women (aged 45–50 years) with adenomyosis who underwent LNG-IUS insertion and were followed for up to 5 years. Uterine volume was measured at baseline, 3 months, and annually thereafter. Patients were divided into groups based on GnRH agonist pretreatment. Treatment outcomes, including discontinuation, surgical intervention, and adverse events, were analyzed. ***Results***: Of the 72 patients, 48 (66.7%) maintained LNG-IUS, while 24 (33.3%) discontinued treatment. The most common cause of discontinuation was spontaneous expulsion. Uterine volume decreased most markedly at 3 months and showed a sustained reduction over time, with an overall decrease of approximately 27%. GnRH pretreatment resulted in a significantly greater reduction in uterine volume at 3 months (p=0.009), but this difference was not sustained at 1 year. The duration of LNG-IUS use until treatment failure was longer in the GnRH group (21.0 vs. 10.9 months, p=0.017), whereas overall failure rates were similar. ***Conclusion***: LNG-IUS provides effective long-term management of adenomyosis in perimenopausal women, with sustained reduction in uterine volume. GnRH agonist pretreatment offers short-term benefits but does not improve long-term outcomes, highlighting the importance of individualized treatment strategies.

RISK-RESPONSIVE OR SOCIALLY TARGETED? UNDERSTANDING LARC PRESCRIPTION AFTER INDUCED ABORTION

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Problem statement*:** Long-acting reveible contraception (LARC) is highly effective after induced abortion, but effectiveness alone does not define contraceptive quality. When reproductive risk overlaps with social disadvantage, risk-responsive counselling may be difficult to distinguish from social targeting. We examined whether LARC prescription was associated primarily with reproductive history or with social-context indicators. ***Methods: This retrospective cohort study included 3,916 women undergoing induced abortion at a Portuguese tertiary hospital between 2020 and 2025. Reproductive-history indicators were previous induced abortion and multiparity. Social-context indicators were age <20 years, non-Portuguese nationality, education up to lower-secondary level, and unemployment or low-skilled employment. Separate multivariable logistic regression models examined cumulative scores and individual indicators, adjusting for calendar year and the remaining covariates. LARC comprised contraceptive implants and intrauterine devices. ***Results***: LARC was prescribed to 1,283 women (32.8%). The cumulative reproductive-history score showed a stronger association with LARC prescription than the social-context score: the adjusted odds increased by 41% for each additional reproductive-history indicator (aOR 1.41; 95% CI 1.28–1.55) and by 10% for each additional social-context indicator (aOR 1.10; 95% CI 1.02–1.18). Previous induced abortion (aOR 1.41; 95% CI 1.21–1.63) and multiparity (aOR 1.41; 95% CI 1.21–1.64) were independently associated with prescription. Among social-context indicators, only lower educational attainment remained associated (aOR 1.22; 95% CI 1.04–1.43); adolescence, non-Portuguese nationality and vulnerable employment did not. ***Conclusion***: Reproductive history—not social context—was the dominant correlate of LARC prescription, suggesting a response broadly proportionate to reproductive need. However, the persistent educational gradient remains open to competing interpretations: equitable access, different informed preferences or differential counselling. Prescription records cannot determine how choices were discussed, whether the method was initiated or whose preference ultimately prevailed. When LARC uptake becomes the target, the woman's preference risks becoming secondary. LARC prescription should therefore not be treated as a stand-alone indicator of contraceptive quality. The relevant outcome is not maximum uptake, but timely and preference-concordant access after unbiased counselling. Effectiveness matters; autonomy determines whether effectiveness constitutes quality.
***Disclosure of interest:** The authors declare no conflicts of interest.*

ADOLESCENTS SEEKING OBSTETRIC AND GYNECOLOGIC EMERGENCY CARE: INSIGHTS FROM A GREEK SECONDARY HOSPITAL

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Problem statement: The attendance of adolescent patients seeking urgent medical care for obstetric or gynecological conditions is a common occurrence in emergency rooms. This study aimed to record and analyze the reasons for emergency visits among adolescent females at a secondary hospital in Central Greece. ***Methods***: A retrospective study was conducted, including all female adolescents under 18 years of age who attended the Emergency Unit (EU) of the Department of Obstetrics and Gynecology at a Greek secondary Hospital over a 15-month period. Data were collected regarding the causes of presentation and the need for hospitalization. ***Results***: Between February 13, 2024, and May 6, 2025, a total of 238 adolescent females were examined on an emergency basis. The majority (91.6%, n=218) presented directly to the Obstetrics and Gynecology EU, while 8.4% (n=20) were referred from other departments. The mean age was 16.13 ± 1.44 years (range 13–18). Hospitalization was required for 21.4% (n=51) of cases. Pregnant adolescents represented 72.3% (n=172) of the total, while 27.7% (n=66) were non-pregnant. Among pregnant adolescents, the most common reasons for presentation were abdominal pain (37.2%), uterine contractions (24.4%), and vaginal bleeding (13.4%), followed by urinary symptoms (5.8%), rupture of membranes (5.2%), low back pain (4.1%), hyperemesis (1.7%), and vulvar itching (0.6%) while 7.55% presented with other or unclassified complaints. Among non-pregnant adolescents, abdominal pain (66.6%) and abnormal vaginal bleeding (19.7%) were the leading causes, while vaginal discomfort (7.6%) and urinary symptoms (3%) were reported less commonly. ***Conclusion***: The findings indicate a considerable number of adolescents seeking emergency obstetric and gynecological care, with the majority being pregnant patients. As such emergencies are often managed by obstetrician-gynecologists who are not sub-specialized in pediatric and adolescent gynecology, it is essential to enhance awareness and training regarding the specific diagnostic and therapeutic approaches required for adolescent patients. Establishing adolescent-focused protocols and providing access to sub-specialty consultation could further improve the quality of care delivered to this sensitive population.

HPV

DETERMINING CANCER FEAR AND HEALTH ANXIETY IN HPV-POSITIVE WOMEN: A DESCRIPTIVE CROSS-SECTIONAL STUDY

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Problem statement: HPV is one of the most crucial etiological risk factors for gynecological cancers, especially cervical cancer, and poses a significant threat to women`s health. Consequently, assessing cancer fear and health anxiety in HPV-positive women is critical for designing psychosocial interventions to improve compliance with early diagnosis and treatment procedures.This study was conducted to determine the levels of cancer fear and health anxiety in HPV-positive women and to examine the relationship between these two variables. ***Methods***: This descriptive, cross-sectional study was conducted in the gynecologic oncology outpatient clinic of a city hospital in Türkiye between March and December 2025. The study included 180 eligible women. Data were collected via a Personal Information Form, the Cancer Worry Scale, and the Health Anxiety Scale. Analyses involved descriptive statistics, Pearson's correlation, and multiple linear regression. ***Results***: The mean age of the participants was 48.53±6.22 years. The women were found to have moderate levels of cancer fear (17.43±10.74) and low levels of health anxiety (16.27±5.82). A positive, very strong, and significant relationship was found between the total and subdimension scores of the CWS and HAS (r=0.926, p<0.01). According to the results of the multiple linear regression analysis, health anxiety explained 85.8% of the variance in cancer fear (p<0.001). Additional significant predictors of increased cancer fear and health anxiety were missing follow-up visits, lack of colposcopy knowledge, and physician referral for Pap smears. ***Conclusion***: As a result of the study, it was determined that HPV-positive women experienced moderate levels of cancer fear and low levels of health anxiety. In addition, health anxiety was found to be the strongest determinant of cancer fear. Based on these results, medical follow-up for HPV-positive women should be supplemented with holistic, empathy-oriented psychosocial support to correct inaccurate illness perceptions.
Acknowledgment*: The presentation of this study at the congress was supported by the Scientific and Technological Research Council of Turkey (TUBITAK) under the 2224-A program.*

PMS/PMDD

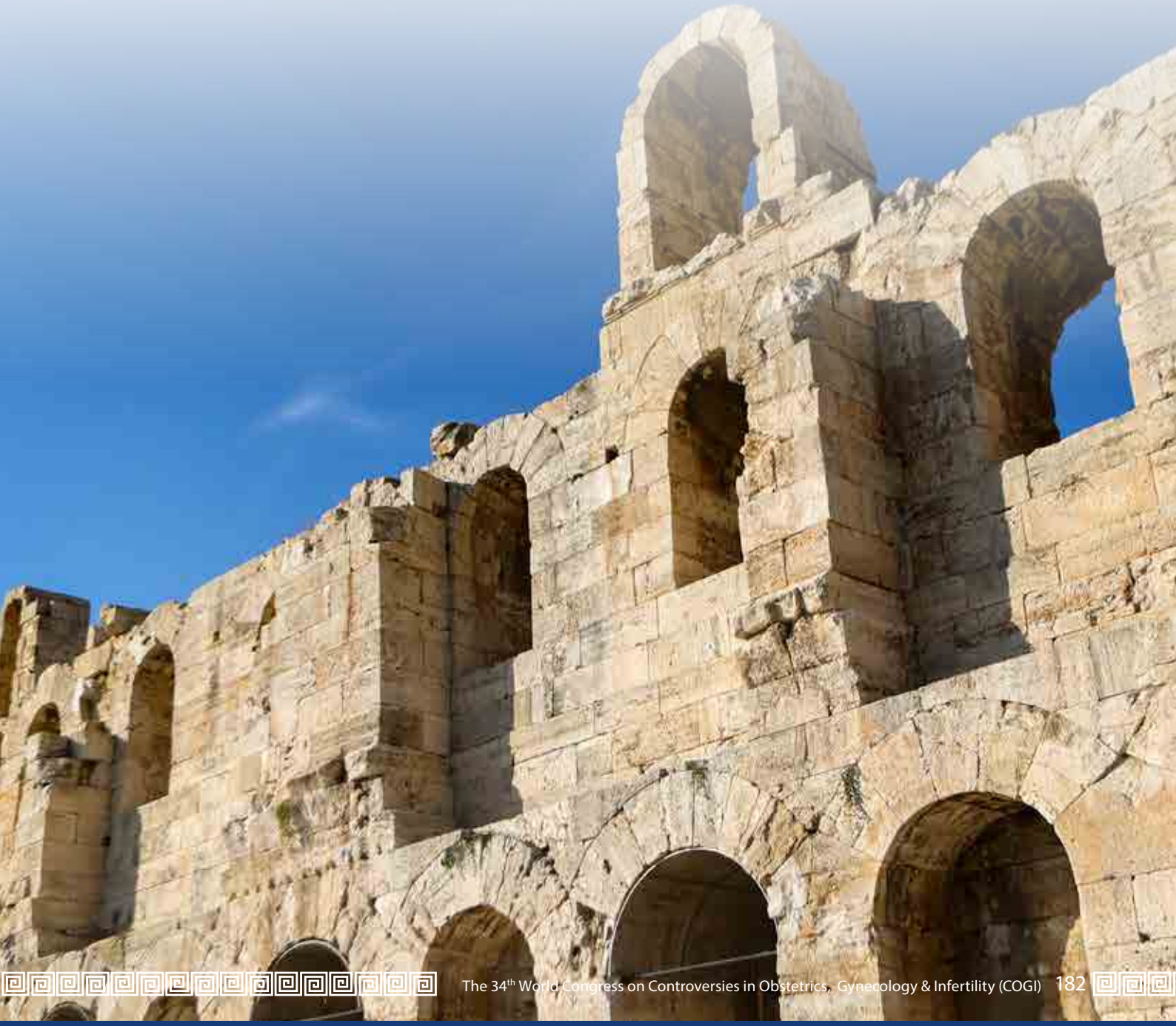
CATAMENIAL CYCLIC VOMITING SYNDROME RESPONDING TO LNG-IUS: A CASE REPORT

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Catamenial cyclic vomiting syndrome (CVS) is a rare and underrecognized subtype of CVS in which recurrent vomiting episodes are temporally linked to the menstrual cycle. We report the case of a 24-year-old nulligravid who presented with recurrent, stereotyped episodes of severe vomiting over several years, accompanied by neurologic and psychiatric manifestations, including seizure-like activity, anxiety, and psychotic symptoms. Extensive gastrointestinal, neurologic, and psychiatric evaluations were repeatedly unrevealing, resulting in prolonged diagnostic delay and predominantly symptom-directed management. A consistent temporal relationship between symptom onset and menstruation was noted retrospectively, with complete symptom resolution during a period of amenorrhea and recurrence upon resumption of menses. Multiple pharmacologic interventions, including antiemetics, psychotropics, and short-term hormonal therapy, provided only transient relief. Definitive management was achieved through menstrual suppression with insertion of a levonorgestrel-releasing intrauterine system, after which the patient experienced complete resolution of vomiting episodes and associated neuropsychiatric symptoms. This case highlights the importance of recognizing menstrual patterns in recurrent vomiting, the potential for diagnostic and therapeutic misalignment in adult CVS, and the role of targeted hormonal intervention in selected patients with catamenial CVS.

Notes

Industry



COGI Laser Course

Athens, Greece, 2026

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Thursday, November 12th 2026, 14:30 – 17:30, Hall B

Laser and Magnetic Stimulation for Women's Health

Course Program:

5 min	Welcome to the Laser Course	Zdenko Vizintin
PART I - Laser in Gynecology: Understanding the Technology		
10 min	The Science of Light: An Introduction to Medical Lasers	Zdenko Vizintin
20 min	Ablative vs Non-Ablative Lasers: Understanding the Difference	Katja Pirc
PART II - Laser and Magnetic Stimulation for Urinary Incontinence		
20 min	15 Years of Non-Ablative Erbium Laser for SUI: From Intravaginal to Intraurethral Treatment	Aleksandra Novakov-Mikic
15 min	Harnessing Magnetic Stimulation: A New Perspective on Pelvic Floor Dysfunction	Katja Pirc
20 min	The Right Treatment for the Right Patient: Optimizing Outcomes in SUI, Cystocele, Vaginal Laxity and GSM?	Aleksandra Novakov-Mikic
10 min	Q&A	
20 min	Coffee Break	
PART III - Laser and GSM - From Vaginal Health to Vulvar Well-Being		
20 min	Beyond Vaginal Atrophy: Pain, Infections and Sexual Health in Menopausal Women and Breast Cancer Survivors	Katja Pirc
20 min	Lichen Sclerosus: The Role of Laser Treatment	Aleksandra Novakov-Mikic
PART IV - Breaking New Ground: Emerging Applications of Laser in Gynecology		
10 min	From Improved IVF Outcomes to Enhanced Clitoral Sensitivity	Zdenko Vizintin
10 min	Q&A	
PART V - Test		
5 min	End-of-Course Test	

Short Course Description:

Course participants will learn the basic principles of using lasers and magnetic stimulation in a variety of non-surgical and surgical procedures within the field of minimally invasive gynecology.

The entire course consists of eleven topics divided into four parts. In Part I the use of Fotona SMOOTH® Erbium laser and magnetic stimulation for female urinary incontinence will be discussed. The second part is dedicated to laser in menopause, while Part III will present additional new innovative applications as well as a range of possible laser treatments. In the last part (IV) participants will complete an End-of-Course Test.

Upon completing the End-of-Course Test, participants will receive the Course Certificate.

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You can find the Bemfola Summary of Product Characteristics by scanning this QR code
1. Fauser BCJM, et al. Hum Reprod Update. 2024;30(2):153-173.
2. Bemfola, Summary of Product Characteristics. Last updated: 17/01/2024.
3. Saunders H, et al. Expert Opin Drug Deliv. 2021;18(5):643-654.

IBSA INDUSTRY SESSION

COGI 2026

Athens, Greece
12-14 November
MAICC



13

NOVEMBER
FRIDAY
12:35-13:05 CET Hall C

Hybrid Cooperative Complexes (HCC) of hyaluronic acid for VVA treatment: from clinical trials to real-world case discussions

Speakers:
Dr. Teresa Aznar Altaba (ES)
Dr. Francesco Meani (CH)

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Industry Supported Sessions

Friday, November 13, 2026

12:35-13:35	Rethinking r-FSH: Real-world evidence meets AI-powered embryology	HALL B
Supported by	GEDEON RICHTER	
Chairperson	**Michael Grynberg**, *France*	
12:35-13:05	FSH biosimilars: Real-world data and clinical experience in perspective **Andreas Abraham Zadeh**, *Spain*	
13:05-13:35	Beyond the origin: AI-based evaluation of oocyte and embryo quality with biosimilar vs originator r-FSH **Marcos Meseguer**, *Spain*	

12:35-13:05	Hybrid Cooperative Complexes (HCC) of hyaluronic acid for WA treatment: from clinical trials to real-world case discussions	HALL C
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	Introduction: setting the scene **Teresa Aznar Altaba**, *Spain* **Francesco Meani**, *Switzerland*	
	Clinical cases and expert discussion **Teresa Aznar Altaba**, *Spain* **Francesco Meani**, *Switzerland*	
	Conclusion and take home messages **Francesco Meani**, *Switzerland*	

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BIOCODEX Microbiota Institute

www.biocodexmicrobiotainstitute.com/en/pro

Founded over 70 years ago with the launch of the world's first probiotic yeast strain, **Biocodex** has evolved into a global pharmaceutical company specializing in microbiota, rare diseases, and women's health — including Saforelle brand. Since 1989, Saforelle has been supporting women's intimate health with expert care solutions that help protect and maintain the natural balance of their intimate health.Biocodex launched in 2017 the Biocodex Microbiota Institute which is committed to better health by raising awareness of the key role played by human microbiota. Through educational, evidence-based, and accessible content, it informs the general public and supports healthcare professionals in integrating microbiota more fully into medical practice.

CENTOGENE
GUIDING PRECISION MEDICINE

www.centogene.com

CENTOGENE is a leading company in the field of genetic diagnostics and precision medicine, dedicated to transforming clinical, genetic, and biochemical data into medical solutions for patients. Based in Rostock, Germany, the company operates globally. Founded in 2006 with the mission of revolutionizing the diagnosis of rare diseases, CENTOGENE proudly celebrates its 20th anniversary this year, marking two decades of scientific innovation and commitment to patients worldwide. Since its founding, the company has scaled its capabilities to diagnose more than 2,500 rare diseases in over 100 countries, building one of the largest genetic databases in the world (1,000,000 individuals) while developing cutting-edge technology for the interpretation of genetic data.
With over 350 scientific publications, CENTOGENE is a key partner for physicians in rapid and accurate genetic diagnosis, and for pharmaceutical companies focused on developing treatments for orphan diseases.

CANYON

https://en.medcanyon.com

Canyon Medical Inc., founded back in 1986, is leading, pioneering, and specializing in the R&D, manufacturing, sales & marketing of microwave ablation. By collaborating with doctors to solve clinical challenges and request, we are proud to be the prominent contributor for the use and spread of thermal ablation treatment home and abroad. As super minimally invasive treatment for uterine fibroids and adynomyosis, Microwave ablation is providing better care and outcome in gynecology.

Copenhagen Sperm Bank

https://copenhagenspermbank.com

Copenhagen Sperm Bank is the Scandinavian branch of Seattle Sperm Bank, one of the world's leading resources for donor sperm.
We were founded on a simple mission; to help create happy, healthy families, to always advocate for our customers and our donors, and to become a global leader in the scientific advancement of sperm distribution.
We provide the very best in donor diversity, vial quality and value, as part of a steadfast commitment to uncompromising medical standards, rigorous quality control procedures and customer care excellence.

GEDEON RICHTER

www.gedeonrichter.com

Gedeon Richter Plc. , headquartered in Budapest, Hungary, is a major pharmaceutical company in Central Eastern Europe, with an expanding direct presence in Western Europe, in China, in Latin America and in Australia. The product portfolio of Richter covers many important therapeutic areas, including Women's Healthcare, Neuroscience and Cardiovascular areas. Having the largest R&D unit in Central Eastern Europe, Richter's original research activity focuses on CNS disorders. With its widely acknowledged steroid chemistry expertise, Richter is a significant player in the Women's Healthcare field worldwide. Richter is also active in biosimilar product development.

https://ginekalikslab.com/en

Founded in 2013 in Skopje, North Macedonia, **Ginekaliks Genetic Laboratory** is a leading provider of advanced genetic diagnostics and genomics solutions. Dedicated to empowering healthcare through innovation, the laboratory specializes in prenatal testing, IVF genetics, carrier screening, oncology, pharmacogenomics, whole genome and exome sequencing, and custom genetic panels. Using state-of-the-art technologies, including next-generation sequencing and advanced bioinformatics, Ginekaliks delivers accurate, timely, and ethical genetic testing services for hospitals, clinics, researchers, and healthcare partners. Committed to scientific excellence, patient care, and responsible genetic data management, Ginekaliks is advancing precision medicine and improving health outcomes across the region.

www.ferring.com

Ferring Pharmaceuticals is a privately owned, specialty biopharmaceutical group committed to building families and helping people live better lives. We are leaders in reproductive medicine with a strong heritage in gastroenterology and urology, and are at the forefront of innovation in uro-oncology gene therapy. Ferring was founded in 1950 and employs more than 7,000 people worldwide. The company is headquartered in Saint-Prex, Switzerland, and has operating subsidiaries in more than 50 countries which market its medicines in over 100 countries.

www.ferticeutics.com

Ferticeutics Co. is a versatile company dedicated to personalized healthcare. We offer innovative products that improve health in many different aspects. Our unique edge lies in pairing these products with tailored healthcare consulting services to further advance well-being and increase healthspan.

www.fotona.com

With over 60 years of expertise, **Fotona** is a world-leading medical laser manufacturer recognized for its innovative, award-winning laser systems in gynecology, surgery, aesthetics & dermatology, and dentistry. Our dual-wavelength Er:YAG and Nd:YAG lasers provide less invasive, highly effective solutions for clinical and aesthetic gynecology. We pioneered the clinically proven Er:YAG SMOOTH® & Nd:YAG PIANO® pulse mode technologies, and developed a new class of gynecology treatments based on HITS® magnetic technology, further advancing non-invasive gynecology. Our global distribution network spans across more than 90 countries, ensuring comprehensive support and service for Fotona laser users, including clinical training, workshops and hands-on demonstrations.

Caring Innovation

www.ibsagroup.com

IBSA Institut Biochimique SA is a pharmaceutical company headquartered in Lugano, Switzerland. Active in 10 therapeutic areas (OA, Pain, Dermatology, Cardiometabolic, Dermoaesthetic, Endocrinology, Human Reproduction, Respiratory, Uro-gynaecology, Consumer Health), the company has developed a series of proprietary technologies allowing a qualitative upgrading of widely used molecules. The Uro-gynaecology portfolio includes: ialuril®, Hyaluxelle®, Perovial® and Sildenafil ODF.

PARTHENOGEN
www.parthenogen.ch

Parthenogen is a Swiss organization incorporated in 2012 with the mission to explore human metabolism, its relationship with the inherited genes and the relevant opportunities to modulate it by means of dietary interventions within the framework of human physiology (metabolic engineering). We are paving new and unexplored avenues on the cutting edge of contemporary research and delivering products covered by patent applications, manufactured in GMP and internationally distributed by a network of independent Partners.
Parthenogen and its exclusive partner for Greece, Parthenogenesis Hellas, are very keen to disclose scientific and clinical details at the exhibition.

Soniquence
www.soniquence.com

Soniquence SmoothWave 4.0 MHz RF generators are the latest innovation from the Ellman family pedigree. Our state-of-the-art technology provides the gynecologic surgeon with efficient, dependable, and high-quality surgical devices that deliver the same gentle, controlled sculpting effect of Ellman, now with more coagulative power and unique bipolar TURBO functionality. Whether for LEEP, condyloma, anal tags, or cosmetic gynecologic procedures, Soniquence technology enables ultra precise incisions, excisions and undermining with simultaneous bleeding control without the thermal tissue/nerve damage associated with traditional electrosurgical or laser technologies.

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