The 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)

All About Women’s Health

In partnership with Reproductive BioMedicine Online (RBMO)

Vienna, Austria
November 30 - December 2, 2017

Congress Program & Abstracts

www.cogi-congress.org • cogi@congressmed.com
### Thursday, November 30, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Hall A</th>
<th>Hall B</th>
<th>Hall C</th>
<th>Hall D</th>
<th>Hall E</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00-16:30</td>
<td><strong>THE BEST RBMO PUBLICATIONS IN 2016-2017: THE EDITOR’S CHOICE</strong></td>
<td><strong>FETAL SURGERY</strong></td>
<td><strong>LASER PRE-COURSE: VAGINAL ERBIUM LASER FOR WOMEN HEALTH</strong></td>
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<tr>
<td>16:30-18:00</td>
<td><strong>UTERUS TRANSPLANTATION</strong></td>
<td><strong>INFECTIONS DURING PREGNANCY</strong></td>
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<tr>
<td>18:00-19:00</td>
<td><strong>OPENING SESSION</strong></td>
<td><strong>NOBEL PRIZE LAUREATE ROBERT G. EDWARDS ANNUAL LECTURE</strong></td>
<td><strong>Partnership of embryonic and extra-embryonic stem cells to build the implanting mammalian embryo in vivo and in vitro</strong></td>
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<tr>
<td>19:00-20:00</td>
<td><strong>Networking reception</strong></td>
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### Friday, December 1, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Infertility/ART/IVF I</th>
<th>Infertility/ART/IVF II</th>
<th>Gynecology/Menopause/ Family Planning</th>
<th>Fetomaternal</th>
<th>Oral presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-10:00</td>
<td><strong>FERTILITY PRESERVATION</strong></td>
<td><strong>NATIONAL SESSION OF THE ASSOCIATION OF GYNECOLOGISTS AND OBSTETRICIANS OF SERBIA, MONTENEGRO AND REPUBLIC OF SRPSKA</strong></td>
<td><strong>MENOPAUSE: DISEASE PREVENTION</strong></td>
<td><strong>PREECLAMPSIA</strong></td>
<td><strong>INFERTILITY/ART/IVF</strong></td>
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<tr>
<td>10:00-10:20</td>
<td><strong>coffee break</strong></td>
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<tr>
<td>10:20-11:50</td>
<td><strong>INDUSTRY-SUPPORTED SYMPOSIUM</strong></td>
<td><strong>ARTIFICIAL GAMETES</strong></td>
<td><strong>NON-MEDICAL OPTIONS TO TREAT VAGINAL ATROPHY</strong></td>
<td><strong>INDUSTRY-SUPPORTED SYMPOSIUM</strong></td>
<td><strong>FETOMATERNAL MEDICINE</strong></td>
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<tr>
<td>11:50-12:10</td>
<td><strong>break</strong></td>
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<tr>
<td>12:10-13:40</td>
<td><strong>INDUSTRY-SUPPORTED SYMPOSIUM</strong></td>
<td><strong>FERTILITY SPARING OPTIONS IN GYNECOLOGIC ONCOLOGY</strong></td>
<td><strong>INDUSTRY-SUPPORTED SYMPOSIUM</strong></td>
<td><strong>PRIE SCHOOL ACADEMY SESSION: THE PROS AND CONS IN THE MANAGEMENT OF PRETERM LABOR</strong></td>
<td><strong>GYNECOLOGY/INFERTILITY</strong></td>
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<td>13:40-14:30</td>
<td><strong>lunch break</strong></td>
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<tr>
<td>14:30-16:30</td>
<td><strong>IT’S ALL IN THE CHROMOSOMES?</strong></td>
<td><strong>HEREDITARY GYNECOLOGIC CANCER</strong></td>
<td><strong>BREAST CANCER RISK FROM HORMONAL TREATMENT</strong></td>
<td><strong>SCREENING FOR GESTATIONAL DIABETES – REVISITED</strong></td>
<td><strong>GYNECOLOGY</strong></td>
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<tr>
<td>16:30-16:50</td>
<td><strong>coffee break</strong></td>
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<tr>
<td>16:50-18:20</td>
<td><strong>IMPLANTATION FAILURE</strong></td>
<td><strong>HOT CONTROVERSIES IN IVF, COMMERCIALIZATION, MICRO NUTRIENTS, SURGICAL PROCEDURES</strong></td>
<td><strong>OBESITY IS AN INDEPENDENT RISK FACTOR OF MENOPAUSE</strong></td>
<td><strong>FROM NEWBORN TO ADULT HEALTH</strong></td>
<td><strong>FETOMATERNAL MEDICINE</strong></td>
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### Saturday, December 2, 2017

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<tr>
<th>Time</th>
<th>Infertility/ART/IVF I</th>
<th>Infertility/ART/IVF II</th>
<th>Gynecology/Menopause/ Family Planning</th>
<th>Fetomaternal</th>
<th>Oral presentations</th>
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<tr>
<td>08:30-10:00</td>
<td><strong>ASSISTED REPRODUCTION: FUTURE PERSPECTIVES</strong></td>
<td><strong>ENDOMETRIOSIS</strong></td>
<td><strong>HPV SCREENING AND SCREENING STRATEGIES</strong></td>
<td><strong>UTERINE NICHE</strong></td>
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<td>10:00-10:20</td>
<td><strong>coffee break</strong></td>
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<tr>
<td>10:20-11:50</td>
<td><strong>TREATMENT OF FIBROIDS</strong></td>
<td><strong>TIME LAPSE</strong></td>
<td><strong>HPV VACCINES: LIGHTS AND SHADOWS</strong></td>
<td><strong>EMERGENCIES IN PERINATOLOGY</strong></td>
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<td>11:50-12:10</td>
<td><strong>break</strong></td>
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<tr>
<td>12:10-13:40</td>
<td><strong>PGS/PGD</strong></td>
<td><strong>SURGICAL SOLUTIONS FOR IMPLANTATION FAILURE</strong></td>
<td><strong>4 METHODS FOR CREATING NEOVAGINA - AND THE WINNER IS…</strong></td>
<td><strong>THROMBOSIS AND BLEEDING</strong></td>
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<tr>
<td>13:40-14:30</td>
<td><strong>lunch break</strong></td>
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<tr>
<td>14:30-16:30</td>
<td><strong>ROLE OF MITOCHONDRIA IN IVF SUCCESS</strong></td>
<td><strong>ADENOMYOSIS AND FERTILITY</strong></td>
<td><strong>WILL HRT EVER REBOUND TO PRE-WHAT?</strong></td>
<td><strong>CONTROVERSIAL ISSUES IN PRETERM BIRTH</strong></td>
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<tr>
<td>16:30-16:50</td>
<td><strong>coffee break</strong></td>
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<tr>
<td>16:50-18:20</td>
<td><strong>Q&amp;A: PANELIST-AUDIENCE INTERACTION ON ACUTE CLINICAL AND LAB ISSUES</strong></td>
<td><strong>ORAL PRESENTATIONS: INFERTILITY/ART/IVF</strong></td>
<td><strong>OCs COMPLICATIONS: IMPACT ON DEPRESSION AND SUICIDE</strong></td>
<td><strong>CESAREAN SECTION</strong></td>
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Dear Friends and Colleagues,

Welcome to the 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI) and to the beautiful city of Vienna.

We are proud to announce that COGI and Reproductive BioMedicine Online (RBMO) have entered into a partnership to bring the best publications of the year to COGI.

This year the COGI Organizing Committee has compiled an exciting and educational scientific program, with provocative debates and ample time for speaker-audience discussions, which we believe will lead to meaningful clinical conclusions. We have started a new thought-provoking “countercurrent corner” where leading scientists will offer ideas that go against current beliefs. We are also continuing with the ground-breaking RG Edwards Nobel Prize Laureate lecture, which will be presented by Prof. Magdalena Zernicka-Goetz, who amazed us at the 2016 COGI Amsterdam Congress with her innovative research.

We would like to thank the industry for their ongoing support. It is with this support that we can continue to promote education and disseminate knowledge.

We welcome all our participants who have travelled from over 85 countries to join us for this unique scientific celebration, and we look forward to fruitful discussions and an enjoyable experience together at COGI Vienna 2017.

We invite to join us again next year at the 26th COGI Congress to celebrate 40 years of IVF in London, England, the place where it all began, with the participation of world leaders of now and then.

Sincerely,

Congress Chairpersons

Zion Ben Rafael
Israel

Christian Egarter
Austria

Bart C.J.M. Fauser
The Netherlands

Rene Frydman
France
FOCUS ON ANOMALIES

PART 1

PRENATAL ULTRASOUND

Stephen T Chase, MD and Daniel W Skupski, MD

Microbiome in prematurity

Bleeding disorders
When to worry and how to help

ACOG GUIDELINES
Prenatal diagnostic testing

LEGALLY SPEAKING
Failure to determine fetal abnormalities

PRACTICE MANAGEMENT
Choosing the right malpractice insurance

For access to free content visit www.ContemporaryOBGYN.net.
Dear Colleagues,

On behalf of our University I am very pleased that the 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility takes place in Vienna in 2017, once again. It is a privilege for us to host this well-known congress and I want to warmly welcome you here at the Medical University of Vienna.

Vienna is not only a capital of music but also of academic medicine and is among the top international event locations. The Medical University of Vienna is not only the largest medical institution in Austria, it is also among the top 20 medical research institutions in Europe and provides Europe’s largest hospital, the AKH in Vienna with its highly qualified medical staff.

With its 650-year history and tradition the Medical University of Vienna has developed into a modern medical research institution. Internationally competitive medical research and the development of innovative solutions for relevant medical needs such as those covered by this congress are core tasks of our institution.

I sincerely hope that your time in Vienna will enable you to acquire inspiring new contacts, to sustain old friendships and will serve as a fruitful basis for progress in your work.

I wish you inspiring and successful days in Vienna.

Markus Müller

o.Univ. Prof. Dr. Markus Müller
Rector Medical University of Vienna
Review
145 Prediction of Gestational Diabetes Early in Pregnancy: Targeting the Long-Term Complications
Correa, P.J.; Vargas, J.F. (Santiago); Sen, S. (Boston, Mass.); Illanes, S.E. (Santiago)

Original Articles
150 Polymorphisms of the Endothelial Nitric Oxide Synthase Gene in Preeclampsia in a Han Chinese Population
Chen, Y. (Wenzhou); Wang, D. (Taizhou); Zhou, M.; Chen, X. (Wenzhou); Chen, J. (Taizhou)

156 Human Granulosa Cells: Insulin and Insulin-Like Growth Factor-1 Receptors and Aromatase Expression Modulation by Metformin
Fuhrmeister, I.P.; Branchini, G.; Pimentel, A.M.; Ferreira, G.D.; Capp, E.; Brum, I.S.; Corleta, H.E. (Porto Alegre)

163 How Reproducible Are 2-Dimensional Ultrasonographic Follicular Diameter Measurements from Stored 3-Dimensional Files of Ovarian Scanning?

169 Pelvic Inflammatory Disease: A Retrospective Clinical Analysis of 1,922 Cases in North China
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176 Vaginal Misoprostol versus Vaginal Estradiol in Overcoming Unsatisfactory Colposcopy
Makkar, B.; Batra, S.; Gandhi, G.; Zutshi, V.; Goswami, D. (New Delhi)

180 Reproductive Performance after Surgery for Endometriosis: Predictive Value of the Revised American Fertility Society Classification and the Endometriosis Fertility Index
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186 Association between Polymorphisms in Sclerostin, Dickkopfs and Secreted Frizzled-Related Protein Genes and Bone Mineral Density in Postmenopausal Korean Women
Lee, D.O. (Koyang); Kim, H.; Ku, S.-Y.; Kim, S.H.; Kim, J.G. (Seoul)

194 A Rare Case of Asherman’s Syndrome after Open Myomectomy: Sonographic Investigations and Possible Underlying Mechanisms

Novel Insights from Clinical Practice
201 A Rare Familial Case of Endometriosis with Very Severe Gynecological and Obstetric Complications: Novel Genetic Variants at a Glance

www.karger.com/goi
Editor-in-Chief
T.M. D’Hooghe, Leuven

Gynecologic and Obstetric Investigation
2017: Volume 82
6 issues per volume
Language: English
ISSN: 0378–7346 (print)
e-ISSN: 1423–002X (online)

www.karger.com/fdt
Editor-in-Chief
E. Gratacós, Barcelona

Fetal Diagnosis and Therapy
2017: Volumes 41, 42
4 issues per volume
Language: English
ISSN 1015–3837 (print)
e-ISSN 1421–9964 (online)

Listed in bibliographic services, including
Journal Citation Reports,
PubMed/MEDLINE, Biological Abstracts, Embase

S. Karger AG, P.O. Box, CH–4009 Basel (Switzerland)
E-Mail: orders@karger.com
It is really a pleasure to welcome you to the 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI) in Vienna.

Vienna, also described as Europe’s cultural capital, is a metropolis with unique charm, vibrancy and flair. It has all the inspiration that you could wish for in order to discover this wonderful part of Europe.

Vienna is the city of music: Vienna has been synonymous with music for centuries, and was home to Mozart, Beethoven, Schubert and Johann Strauss. This outstanding musical heritage has been preserved right to the present day. The Wiener Philharmoniker is one of the world’s top orchestras, the Vienna Boys’ Choir is incredibly successful wherever it tours, and the Vienna Conservatorium has produced innumerable international award-winners in all musical disciplines.

Apart from being regarded as the City of Music because of its musical legacy, Vienna is also said to be the “City of Dreams” because it was home to the world’s first psychoanalyst Sigmund Freud, a neurologist who is well known for being one of the greatest interpreters of dreams. Vienna owes its universal appeal to the way it excitingly combines imperial nostalgia with a highly creative cultural scene, responsibly cultivating a precious heritage and charming traditions whilst taking on board the latest trends. Architecture, for instance, dating from imperial times has left an indelible mark on the city. Magnificent edifices, predominantly in baroque, historicism (such as the “Ringstrasse”) and art nouveau styles, and the city’s grand scale cause you to forget that this is the capital of the small Republic of Austria with only 8.4 million inhabitants.

Down the centuries, Vienna has always produced and nurtured world-famous artists. The collecting passion of art-loving rulers and monarchs has made Vienna a treasure house par excellence. The Museum of Fine Arts, for instance, is one of the world’s largest and most distinguished museums, housing priceless works of art. Art accompanies you wherever you go in Vienna.

In recent years Vienna has also established itself as a major player in the world as an international conference destination. The climate of tolerance and understanding creates ideal conditions for international meetings. I wish you an educational, interesting and inspiring event and sincerely hope that you enjoy Vienna.

Dr. Michael Häupl

Mayor and Governor of Vienna
CONGRESS APP
All participants are invited to download the COGI Congress app, which you can use to view the scientific program, find sessions of interest, create your own program, find and read abstracts, and locate meeting rooms. Download the app from the Apple app store or Google Play.

VENUE
Hilton Vienna
Am Stadtpark 1, A-1030 Vienna, Austria

LANGUAGE
The official language of the congress in English.

REGISTRATION AND FACULTY DESK OPENING HOURS
Thursday, November 30 12:00-19:00
Friday, December 1 07:30-18:00
Saturday, December 2 08:00-18:00

CONGRESS ADMISSION – NAME BADGE
Admission to the scientific sessions, exhibition area and congress-related events is by name badge only. All participants are kindly requested to carry their personal badge received upon registration at all times while at the congress.

EXHIBITION OPENING HOURS
Thursday, November 30 19:00-20:00
Friday, December 1 08:30-18:20
Saturday, December 2 08:30-18:20

POSTERS
All the posters are presented in electronic format. The stations are located on mezzanine 1 and will be open to all participants on Friday and Saturday during the exhibition hours.

INTERNET
Wireless internet is complimentary in all congress areas.

CERTIFICATE OF ATTENDANCE (non-CME/CPD)
You may collect your certificate of attendance from the registration desk. The certificates will be handed out from Saturday, December 2.

CME ACCREDITATION
The 25th COGI Congress has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) for a maximum of 19 European CME credits (ECMEC®s).
To receive your CME accreditation certificate, please visit the congress website and complete the online form. Your certificate will be sent to you directly following the congress.
REFRESHMENTS
The networking reception will be held on Thursday at 19:00 in the exhibition area.
Coffee and lunch will be served in the exhibition area on Friday and Saturday during the official catering breaks.

SPEAKERS’ PREVIEW ROOM
All invited speakers and oral presenters are asked to upload their presentations at the speakers’ preview room (mezzanine 1) at least 2 hours before the start of their session. The room will be open during the following hours:
Thursday, November 30  12:00-19:00
Friday, December 1   07:30-18:00
Saturday, December 2  08:00-18:00

CLOAKROOM
The cloakroom is located on the ground floor and will be open during the following hours:
Thursday, November 30  14:30-20:00
Friday, December 1 08:00-18:30
Saturday, December 2  08:00-18:30

SAFETY AND SECURITY
Please do not leave any bags or other personal belongings unattended at any time, whether inside or outside the session halls.

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 25th COGI Congress. Participants are advised to make their own arrangements with respect to health and travel insurance.

RECORDING POLICY
Recording (photographic, video and audio) of the sessions is strictly prohibited.

SOCIAL MEDIA
Follow COGI social media pages for the latest updates, key date reminders, and discussions with colleagues and experts from around the world.
Facebook: COGI Congress
LinkedIn: Controversies in Obstetrics, Gynecology & Infertility (COGI)
Twitter: @cogicongress/#COGI
Youtube: cogicongress
Submit a manuscript

The Journal of Endometriosis and Pelvic Pain Disorders (JEPPD) publishes basic and clinical original research articles and critical reviews focusing specifically on diagnosis, medical and surgical treatment of endometriosis in all its multidimensional aspects. In particular, contributions on the epidemiology of the disease, of its diagnosis and classification, and of its medical, social, psychological and health outcome consequences are welcome. Manuscripts related to uterine disorders and other gynecological and non-gynecological diseases leading to pelvic pain are also a specific focus of the journal.

JEPPD uses a cloud-based manuscript submission and peer-review tracking system to streamline communication between editors, authors and reviewers.

Editor in Chief: Mauricio Abrão
ISSN: 2284-0265
Frequency: 4 issues per year
Website: www.j-endometriosis.com

Submit a manuscript

Submit an article for publication in Journal of Endometriosis and Pelvic Pain Disorders
Go to www.editorialmanager.com/je
### International Organizing Committee

<table>
<thead>
<tr>
<th>ART/IVF</th>
<th>GYNECOLOGY / MENOPAUSE / ENDOMETRIOSIS / FAMILY PLANNING</th>
<th>HPV</th>
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</table>
| Jacques Donnez, Belgium  
Bart C.J.M. Fauser, The Netherlands  
Rene Frydman, France  
Victor Gomel, Canada  
Laura Rienzi, Italy  
Rita Vassena, Spain | Johannes Bitzer, Switzerland  
Jacques Donnez, Belgium  
Christian Egarter, Austria  
Andrea R. Genazzani, Italy  
Guangnan Luo, China  
Alfred Mueck, Germany  
Santiago Palacios, Spain  
Serge Rozenberg, Belgium  
Xiangyan Ruan, China  
Sven Skouby, Denmark | Xavier Bosch, Spain  
Changping Zou, USA |
| FETOMATERNAL | | |
| Aris Antsaklis, Greece  
Chiara Bendetto, Italy  
Dan Farine, Canada | | |

### Local Organizing Committee

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<thead>
<tr>
<th>ART/IVF</th>
<th>GYNECOLOGY / MENOPAUSE / ENDOMETRIOSIS / FAMILY PLANNING</th>
<th>HPV</th>
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</thead>
</table>
| Thomas Ebner  
Kazem Nouri  
Katharina Walch  
Andrea Weghofer | Julian Marschalek  
Klaus Mayerhofer  
Johannes Ott  
Georg Pfeiler | Elmar Joura |
| FETOMATERNAL | | |
| Julia Binder  
Hanns Helmer  
Petra Pateisky  
Christof Worda  
Harald Zeisler | | |

### HPV

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<tr>
<th>GYNECOLOGY / ONCOLOGY</th>
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| Xavier Bosch, Spain  
Changping Zou, USA |

### GYNECOLOGY / ONCOLOGY

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<td>Pierluigi Benedetti Panici, Italy</td>
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### HPV

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<td>Elmar Joura</td>
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### GYNECOLOGY / ONCOLOGY

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| Christoph Grimm  
Heinrich Husslein  
Ulrike Kaufmann  
Lorenz Küssel  
Stefan Polterauer  
Wolfgang Umek ||
Current Topics in Menopause

Menopause is a significant event in a woman’s life as it is generally considered as an indicator for senescence in women. Evidence suggests that menopause results in many psychological and postmenopausal health problems, such as anxiety, osteoporosis, cardiovascular disease, metabolic disorder and others. Menopausal symptoms and associated disorders are of great importance for public health as they influence the quality of life of affected individuals. Therefore proper management of menopause will definitely contribute to healthy aging and the overall well-being of women.

Robotic Surgery in Gynecology

Emerging Technologies in Women’s Health

This eBook explains the techniques of performing minimally invasive robotic surgery in a concise manner.

Prenatal Alcohol Use and Fetal Alcohol Spectrum Disorders: Diagnosis, Assessment and New Directions in Research and Multimodal Treatment

This eBook addresses the impact of prenatal exposure to alcohol, and Fetal Alcohol Spectrum Disorders (FASD). It presents a compilation of current research by leading experts in the field and serves as a guide to future directions in FASD research, interventions and treatment. The eBook includes a comprehensive compendium of our knowledge of the dangers of prenatal alcohol exposure and covers ways to screen and intervene with pregnant women, diagnosis and treatment to ameliorate the effects of prenatal alcohol exposure (through the lifespan), and other related issues, such as building a state infrastructure of health services and legislation. The eBook is intended as a textbook for graduate courses relevant to FASD.

To Attendees of “25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)”

To apply, refer discount code “BSPCNF17” and email at: marketing@benthamscience.org

Bentham eBooks 20% Special Discount
COGI

All About Women’s Health

Scientific Program
## THURSDAY, NOVEMBER 30, 2017

### INFERTILITY/ART/IVF

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<td>Zion Ben Rafael, Israel</td>
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<tr>
<td>15:00-15:10</td>
<td>Introduction</td>
<td>Bart Fauser, The Netherlands</td>
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<tr>
<td>15:10-15:35</td>
<td>Women’s intentions to use fertility preservation to prevent age-related fertility decline</td>
<td>Anne ter Keurst, The Netherlands</td>
</tr>
<tr>
<td>15:35-16:00</td>
<td>microRNA miR-200b affects proliferation, invasiveness and stemness of endometriotic cells by targeting ZEB1, ZEB2 and KLF4</td>
<td>Martin Götte, Germany</td>
</tr>
<tr>
<td>16:00-16:25</td>
<td>Anti-Müllerian hormone in breast cancer patients treated with chemotherapy: A retrospective evaluation of subsequent pregnancies</td>
<td>Anne-Sophie Hamy, France</td>
</tr>
<tr>
<td>16:25-16:30</td>
<td>Closing</td>
<td></td>
</tr>
</tbody>
</table>

### 16:30-18:00

#### UTERUS TRANSPLANTATION

**Capsule**

Odyssey through the exciting development of recent years

**Chairpersons**

Mats Brännström, Sweden  
Rene Frydman, France  
Victor Gomel, Canada

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Chairpersons</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:30-16:50</td>
<td>Surgical techniques of live donor uterus transplantation</td>
<td>Pernilla Dahm Kähler, Sweden</td>
</tr>
<tr>
<td>16:50-17:15</td>
<td>Results of surgery and the first post-transplantation year</td>
<td>Mats Brännström, Sweden</td>
</tr>
<tr>
<td>17:15-17:35</td>
<td>Obstetric pitfalls and results</td>
<td>Pernilla Dahm Kähler, Sweden</td>
</tr>
<tr>
<td>17:35-18:00</td>
<td>Bioengineered uterus: The future?</td>
<td>Mats Brännström, Sweden</td>
</tr>
</tbody>
</table>
18:00-19:00  OPENING SESSION  

Chairpersons  
Zion Ben Rafael, Israel  
Bart Fauser, The Netherlands  
Christian Egarter, Austria  

Nobel Prize Laureate Robert G. Edwards annual lecture  

Partnership of embryonic and extra-embryonic stem cells to build the implanting mammalian embryo in vivo and in vitro  
Magdalena Zernicka-Goetz, UK  

Young Scientist Award Ceremony  

19:00-20:00  NETWORKING RECEPTION
### THURSDAY, NOVEMBER 30, 2017

#### FETOMATERNAL MEDICINE  

**15:00-16:30 FETAL SURGERY**  

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Chairpersons</th>
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</thead>
<tbody>
<tr>
<td>15:00-15:20</td>
<td>Diagnosis and treatment of twin-to-twin transfusion syndrome</td>
<td>Christof Worda, Austria</td>
</tr>
<tr>
<td>15:20-15:45</td>
<td>Treatment of diaphragmatic hernia</td>
<td>Jan Deprest, Belgium</td>
</tr>
<tr>
<td>15:45-16:05</td>
<td>Fetal cardiac interventions: State of the art</td>
<td>Alberto Galindo, Spain</td>
</tr>
<tr>
<td>16:05-18:00</td>
<td>INFECTIONS DURING PREGNANCY</td>
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</tr>
<tr>
<td>16:30-16:50</td>
<td>Are antibiotics what they used to be?</td>
<td>Dan Farine, Canada</td>
</tr>
</tbody>
</table>
| 16:50-17:15   | Strategies for GBS screening, prevention and treatment in the perinatal period  
(new consensus guidelines) | Gian Carlo Di Renzo, Italy |
| 17:15-17:35   | Progresses in vaginal microflora physiology and implications for bacterial vaginosis and candidiasis | Gary Ventolini, USA |
| 17:35-18:00   | Overview of bacterial infections during pregnancy                      | Bo Jacobsson, Sweden |

**Capsule** Precise diagnostic tools allow earlier intervention in a large number of anomalies  

**Chairpersons** Gian Carlo Di Renzo, Italy  
Hanns Helmer, Austria  

**Capsule** Bacterial infections can potentially affect pregnancy from implantation, during pregnancy, through delivery and into the peripartum period. Infections are often asymptomatic, requiring a high degree of awareness and adequate screening  

**Chairpersons** Dan Farine, Canada  
Alberto Galindo, Spain
**FRIDAY, DECEMBER 1, 2017**

### INFERTILITY/ART/IVF

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>08:30-10:00</strong></td>
<td><strong>FERTILITY PRESERVATION</strong></td>
<td>HALL A</td>
</tr>
<tr>
<td>Capsule</td>
<td>“Cancer patients should be informed of options for fertility preservation and future reproduction prior to cancer treatment” (ASRM). However, many oncologists and gynecologists are not fully aware of the current options and results</td>
<td></td>
</tr>
<tr>
<td>Chairpersons</td>
<td>Dominique De Ziegler, France</td>
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<td></td>
<td>Claus Yding Andersen, Denmark</td>
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<tr>
<td>08:30-08:50</td>
<td>Medical protection of gonadal damage</td>
<td>Marie-Madeleine Dolmans, Belgium</td>
</tr>
<tr>
<td>08:50-09:15</td>
<td>Ovarian tissue transplantation techniques and results</td>
<td>Jacques Donnez, Belgium</td>
</tr>
<tr>
<td>09:15-09:40</td>
<td>Ovarian tissue freezing and fertility preservation beyond cancer patients</td>
<td>Claus Yding Andersen, Denmark</td>
</tr>
<tr>
<td>09:40-10:00</td>
<td>Fertility preservation in BRCA mutation carriers: Ready for prime time?</td>
<td>Edgardo Somigliana, Italy</td>
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<tr>
<td><strong>10:00-10:20</strong></td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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<tr>
<td><strong>10:20-11:50</strong></td>
<td><strong>INDUSTRY SYMPOSIUM</strong> (see page 159)</td>
<td>HALL A</td>
</tr>
<tr>
<td>11:50-12:10</td>
<td><strong>BREAK</strong></td>
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<tr>
<td><strong>12:10-13:40</strong></td>
<td><strong>INDUSTRY SYMPOSIUM</strong> (see page 161)</td>
<td><strong>HALL A</strong></td>
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<tr>
<td>13:40-14:30</td>
<td><strong>LUNCH BREAK</strong></td>
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<tr>
<td><strong>14:30-16:30</strong></td>
<td><strong>IT’S ALL IN THE CHROMOSOMES?</strong></td>
<td><strong>HALL A</strong></td>
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<tr>
<td>Capsule</td>
<td>We are waking to the fact that the early embryos have tremendous correction mechanisms that complicate the selection process. By germline editing, are we getting closer to the first step in creating the “homo deus”?</td>
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<tr>
<td>Chairpersons</td>
<td>Rita Vassena, Spain</td>
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<td></td>
<td>Georg Griesinger, Germany</td>
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<tr>
<td>14:30-14:50</td>
<td>The mismeasurement of mosaicism in human embryos</td>
<td>David Albertini, USA</td>
</tr>
<tr>
<td>14:50-15:15</td>
<td>Chromosome abnormalities can be induced by fertility center practices</td>
<td>Santiago Munné, USA</td>
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<tr>
<td>Time</td>
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<tr>
<td>15:15-15:35</td>
<td>The pros and cons of aneuploidy embryos transfer</td>
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<td></td>
<td><strong>Siobhan Quenby</strong>, UK</td>
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<tr>
<td>15:35-16:00</td>
<td>Human germline gene editing: Are we ready?</td>
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<td></td>
<td><strong>Rita Vassena</strong>, Spain</td>
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<tr>
<td>16:00-16:30</td>
<td><strong>Special COGI-RBMO countercurrent lecture:</strong></td>
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<tr>
<td></td>
<td>Oocyte quality deterioration with age has little to do with chromosomes</td>
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<td></td>
<td><strong>David Albertini</strong>, USA</td>
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<tr>
<td>16:30-16:50</td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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<tr>
<td>16:50-18:20</td>
<td><strong>IMPLANTATION FAILURE</strong></td>
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<td></td>
<td>Implantation failure is multi-factorial and common. Do we have new understandings and solutions?</td>
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<td></td>
<td>Chairpersons: <strong>Rene Frydman</strong>, France</td>
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<td></td>
<td><strong>David Albertini</strong>, USA</td>
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<tr>
<td>16:50-17:20</td>
<td>Endometrial cellular senescence and implantation failure</td>
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<td></td>
<td><strong>Jan Brosens</strong>, UK</td>
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<td>17:20-17:50</td>
<td>Endometrial receptivity: How to assess it and is it key to embryo wastage?</td>
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<td><strong>Georg Griesinger</strong>, Germany</td>
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<tr>
<td>17:50-18:20</td>
<td>Diagnosis and treatment of endometrial receptivity</td>
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<td></td>
<td><strong>Xavier Santamaria</strong>, Spain</td>
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</tbody>
</table>
## FRIDAY, DECEMBER 1, 2017

### INFERTILITY/ART/IVF

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chairpersons</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30</td>
<td>NATIONAL SESSION OF THE ASSOCIATION OF GYNECOLOGISTS AND OBSTETRICIANS OF SERBIA, MONTENEGRO AND REPUBLIC OF SRPSKA</td>
<td>Aleksandar Stefanović, Serbia</td>
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<td>Katarina Jeremić, Serbia</td>
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<tr>
<td>08:30</td>
<td>Fertility preservation: New approach</td>
<td>Aleksandar Stefanović, Serbia</td>
</tr>
<tr>
<td>08:40</td>
<td>Trophoblastic disease: Our experiences</td>
<td>Saša Kadija-Gestational, Serbia</td>
</tr>
<tr>
<td>08:50</td>
<td>Malignant ovarian tumors and pregnancy</td>
<td>Rakić Snežana, Serbia</td>
</tr>
<tr>
<td>09:00</td>
<td>Preterm birth: Contemporary approach</td>
<td>Vesna Ećim Zlojutro, Serbia</td>
</tr>
<tr>
<td>09:10</td>
<td>Hellp syndrome in pregnancy</td>
<td>Miloš Petronijević, Serbia</td>
</tr>
<tr>
<td>09:20</td>
<td>Cancer in pregnancy: Need for centralization</td>
<td>Katarina Jeremić, Serbia</td>
</tr>
<tr>
<td>09:30</td>
<td>Prenatal diagnosis of congenital heart defects</td>
<td>Svetlana Vrzić Petronijević, Serbia</td>
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<tr>
<td>09:40</td>
<td>Fetal programming in perinatology</td>
<td>Miroslava Gojnić Dugalić, Serbia</td>
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<tr>
<td>09:50</td>
<td>Discussion</td>
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<tr>
<td>10:00</td>
<td>COFFEE BREAK &amp; POSTER VIEWING</td>
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<tr>
<td>10:20</td>
<td>ARTIFICIAL GAMETES</td>
<td>Norbert Gleicher, USA</td>
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<td></td>
<td></td>
<td>Marie-Madeleine Dolmans, Belgium</td>
</tr>
<tr>
<td>10:20</td>
<td>Artificial gamete: Ready for clinical use?</td>
<td>Björn Heindryckx, Belgium</td>
</tr>
<tr>
<td>10:50</td>
<td>Artificial ovary</td>
<td>Marie-Madeleine Dolmans, Belgium</td>
</tr>
<tr>
<td>11:20</td>
<td>Creation of germ cells is the solution for fertility preservation</td>
<td>Sjoerd Repping, The Netherlands</td>
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<tr>
<td>11:50</td>
<td>BREAK</td>
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</tbody>
</table>
### FRIDAY, DECEMBER 1, 2017

#### 12:10-13:40  FERTILITY SPARING OPTIONS IN GYNECOLOGIC ONCOLOGY  
**HALL B**

**Capsule**
About 10% of all female cancer survivors are younger than 40 years of age. Cancers affecting female genital organs are usually treated by radical surgery, chemotherapy or chemoradiation approaches, which induce permanent damage to reproductive functions. In young women with new diagnoses of cervical, endometrial or ovarian cancers, viable strategies for fertility preservation without compromising oncological outcome exist and should be considered.

**Chairpersons**
- Heinz Kölbl, Austria
- Stephan Polterauer, Austria
- Katarina Jeremić, Serbia

- 12:10-12:30  Fertility-sparing surgery in early-stage cervical cancer  
  **Alexander Reinthaller**, Austria

- 12:30-12:55  Fertility-sparing management in young endometrial cancer patients  
  **Dominik Denschlag**, Germany

- 12:55-13:15  Fertility sparing management of ovarian cancer and borderline tumors  
  **Ignacio Zapardiel**, Spain

  **Joseph Schenker**, Israel

### 13:40-14:30  LUNCH BREAK

#### 14:30-16:30  HEREDITARY GYNECOLOGIC CANCER  
**HALL B**

**Capsule**
Gynecologists and gynecologic oncologists play a major role in identifying and counselling patients at increased risk of inherited cancer syndromes.

**Chairpersons**
- Ranjit Manchanda, UK
- Christian Singer, Austria
- Igor Gladchuk, Ukraine

- 14:30-14:50  Hereditary breast cancer  
  **Daphne Gschwantler-Kaulich**, Austria

- 14:50-15:15  Hereditary gynecologic cancers  
  **Christoph Grimm**, Austria

- 15:15-15:35  Chemoprevention and prophylactic surgery for breast cancer  
  **Georg Pfeiler**, Austria

- 15:35-16:00  Chemoprevention and prophylactic surgery for ovarian cancer  
  **Ranjit Manchanda**, UK
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 16:00-16:30 | **Special COGI-RBMO countercurrent lecture:** Future perspectives in early diagnostic in screening and early diagnostic of epithelial ovarian cancer  
  **Paul Speiser**, Austria |
| 16:30-16:50 | **COFFEE BREAK & POSTER VIEWING**                                     |
| 16:50-18:20 | **HOT CONTROVERSIES IN IVF, COMMERCIALIZATION, MICRONUTRIENTS, SURGICAL PROCEDURES**  
  **HALL B** |
| Chairpersons | **Frank Broekmans**, The Netherlands  
  **Norbert Gleicher**, USA |
| 16:50-17:10 | Commercialization of unproven technologies in reproductive medicine  
  **Sjoerd Repping**, The Netherlands |
| 17:10-17:35 | Clinical aspects of Mayer-Rokitansky-Kuster-Hauser syndrome in the Chinese population: An analysis of 1000+ patients  
  **Hongxin Pan**, China  
  O51 – 1585 |
| 17:35-17:55 | Changing paradigm for success in ART from PR in fresh cycle towards cumulative PR  
  **Hans-Peter Steiner**, Austria  
  O61-1583 |
| 17:55-18:20 | The role of micronutrient supplementation in female sterility  
  **Johannes Ott**, Austria |
FRIDAY, DECEMBER 1, 2017

GYNECOLOGY/MENOPAUSE/FAMILY PLANNING

08:30-10:00 MENOPAUSE: DISEASE PREVENTION

Capsule The debate continues: Can HRT prevent post-menopausal morbidity?

Chairpersons Xiangyan Ruan, China
Marco Gambacciani, Italy

08:30-08:50 HRT: WHI authors claim wrong data interpretation
Alfred Mueck, Germany

08:50-09:35 Debate: HRT - Cardiovascular risk or prevention?
Risk: Sven Skouby, Denmark
Prevention: Christian Egarter, Austria
Discussion

09:35-10:00 HRT: How to prevent and/or treat (uterine) bleeding problems
Alfred Mueck, Germany

10:20-11:50 NON-MEDICAL OPTIONS TO TREAT VAGINAL ATROPHY

Capsule The current worldwide laser hype offers treatment for “Atrophic vaginitis” including alleviation of dryness, burning, irritation, sexual symptoms, lack of lubrication and urinary symptoms. What are the proofs? Alleviation?

Chairpersons Irene Lambrinoudaki, Greece
Marco Gambacciani, Italy

10:20-10:50 Non-hormonal options to treat vaginal atrophy: A pathophysiologic perspective
Alessandra Graziottin, Italy

10:50-11:20 Vaginal erbium laser for genitourinary syndrome of menopause
Marco Gambacciani, Italy

11:20-11:50 Vaginal Lactobacillus: Biofilm formation in vivo – clinical implications
Gary Ventolini, USA

12:10-13:40 VULVOVAGINAL PROBLEMS ON THE RISE: ARE WE READY?

Chairpersons Jorma Paavonen, Finland
Gilbert Donders, Belgium

12:10-12:35 Vulvar vestibulitis syndrome: Conservative management or surgery?
Päivi Tommola, Finland
Jorma Paavonen, Finland

12:35-13:00 Abnormal vaginal microbiome: Is this bacterial vaginosis or aerobic vaginitis? How to develop a pragmatic clinical algorithm
Gilbert Donders, Belgium
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-13:25</td>
<td>Vulvar dermatoses: Natural history of lichen sclerosus and lichen planus; risk for malignancy</td>
<td>Finland</td>
</tr>
<tr>
<td>13:25-13:40</td>
<td>Discussion</td>
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<tr>
<td>13:40-14:30</td>
<td><strong>LUNCH BREAK</strong></td>
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<tr>
<td>14:30-16:30</td>
<td><strong>BREAST CANCER RISK FROM HORMONAL TREATMENT</strong></td>
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<td>Capsule</td>
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<td>Is a knee-jerk association of hormonal treatment with breast cancer overstated?</td>
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<td>Chairpersons</td>
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<td>Tommaso Simoncini, Italy</td>
<td>Italy</td>
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<td>Santiago Palacios, Spain</td>
<td>Spain</td>
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<tr>
<td>14:30-14:50</td>
<td>Progestins and breast cancer risk</td>
<td>Germany</td>
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<tr>
<td>14:50-15:15</td>
<td>How can we reduce the HRT related breast cancer risk?</td>
<td>Italy</td>
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<tr>
<td>15:15-15:35</td>
<td>Impact of different SERMs on breast cancer</td>
<td>Spain</td>
</tr>
<tr>
<td>15:35-16:00</td>
<td>Progestins and cardiovascular aspects</td>
<td>Austria</td>
</tr>
<tr>
<td>16:00-16:30</td>
<td><strong>Special countercurrent lecture:</strong> Estrogens protect against breast cancer and can be used in selected cases for the treatment of breast cancer</td>
<td>The Netherlands</td>
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<tr>
<td>16:30-16:50</td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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<tr>
<td>16:50-18:20</td>
<td><strong>OBESITY IS AN INDEPENDENT RISK FACTOR OF MENOPAUSE</strong></td>
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<td>Capsule</td>
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<tr>
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<td>Hormonal changes are not necessarily responsible for menopausal weight gain. Other factors such as lifestyle, the right diet and physical activity are important factors in controlling age related and menopausal obesity</td>
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<td>Chairpersons</td>
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<td>Sven Skouby, Denmark</td>
<td>Denmark</td>
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<td>Alessandra Graziottin, Italy</td>
<td>Italy</td>
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<tr>
<td>16:50-17:10</td>
<td>Prevention of peri-menopausal obesity by diet and life-style intervention</td>
<td>Greece</td>
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<tr>
<td>17:10-17:35</td>
<td>The implications of fat accumulation during menopause</td>
<td>Italy</td>
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<tr>
<td>17:35-17:55</td>
<td>Managing obesity: The place of bariatric surgery</td>
<td>Austria</td>
</tr>
<tr>
<td>17:55-18:20</td>
<td>Exercising during and after menopause: Biological benefits to increase longevity in health</td>
<td>Italy</td>
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</tbody>
</table>
FRIDAY, DECEMBER 1, 2017

FETOMATERNAL MEDICINE

08:30-10:00 PREECLAMPSIA

Capsule
Hypertensive disorders are associated with underlying placental and maternal changes, endothelial dysfunction and vasospasm, leading to placental insufficiency and serious consequences for the mother and infant. But can we agree on the basic etiology?

Chairpersons
Aris Antsaklis, Greece
Julia Binder, Austria
Harald Zeisler, Austria

08:30-08:50 New data on sFlt1/PIGF
Stefan Verlohren, Germany

08:50-09:15 Maternal hemodynamics in patients with preeclampsia
Asma Khalil, UK

09:15-10:00 Debate: Preeclampsia - a cardiac disease?
Yes: Basky Thilaganathan, UK
No: Annetine Staff, Norway
Discussion

10:00-10:20 COFFEE BREAK & POSTER VIEWING

10:20-11:50 INDUSTRY SYMPOSIUM (see page 160)

11:50-12:10 BREAK

12:10-13:40 PREIS SCHOOL ACADEMY SESSION: THE PROS AND CONS IN THE MANAGEMENT OF PRETERM LABOR

Chairpersons
Gian Carlo Di Renzo, Italy
Hanns Helmer, Austria

12:10-12:30 Why prematurity?
Jan Stener Jørgensen, Denmark

12:30-12:55 Can we predict and prevent?
Gian Carlo Di Renzo, Italy

12:55-13:15 The pillars of the management are evidence-based and safe?
Hanns Helmer, Austria

13:15-13:40 Is it worth always postponing preterm labor? The pros and cons
Gerard Visser, The Netherlands

13:40-14:30 LUNCH
14:30-16:30 SCREENING FOR GESTATIONAL DIABETES – REVISITED  

Capsule  The more we know, the less we understand?

Chairpersons  
Yariv Yogev, Israel  
Christian Göbl, Austria

14:30-15:15 Debate: Are screening and diagnosis of gestational diabetes mellitus by IADPSG criteria effective?  
Yes, screening and diagnosis by IADPSG criteria are effective  
Bence Csapo, Austria  
No, screening and diagnosis by IADPSG criteria are not effective  
Christian Göbl, Austria  
Discussion

15:15-15:35 What evidence is there for testing for gestational diabetes in early pregnancy?  
Evelyn Huhn, Switzerland

15:35-16:00 Can mathematical models help improve the information derived from the OGTT?  
Andrea Tura, Italy

16:00-16:30 Special countercurrent lecture:  
The refrain "The answer, my friend, is blowin’ in the wind" (Bob Dylan) has been described as  
"impenetrably ambiguous: Either the answer is so obvious it is right in your face, or the answer is as  
intangible as the wind". Wikipedia

Defining good glycemic control – the answer is blowin’ in the wind?  
Yariv Yogev, Israel

16:30-16:50 COFFEE BREAK & POSTER VIEWING

16:50-18:20 FROM NEWBORN TO ADULT HEALTH  

Capsule  Primary prevention of chronic diseases and complications through nutrition intervention seems crucial in all disciplines of medicine

Chairpersons  
Gian Carlo Di Renzo, Italy  
Isaac Blickstein, Israel

16:50-17:20 Controversies regarding weight loss in pregnancy  
Yariv Yogev, Israel

17:20-17:50 The paradigm of hyperglycemia in pregnancy and the possibilities of prevention  
Gian Carlo Di Renzo, Italy

17:50-18:20 Investing in pregnancy and newborn to boost adolescent-adult health  
Gabriella Conti, UK
FRIDAY, DECEMBER 1, 2017

ORAL PRESENTATIONS

08:30-10:00  ORAL PRESENTATIONS- INFERTILITY/ART/IVF  HALL E

Chairpersons  Emina Ejubovic, Bosnia and Herzegovina
              Giuseppe Tritto, Italy

O65 - 1431
New advances in microsurgery of male infertility. Testis expandable biosurgery and microsurgery
Giuseppe Tritto, Italy

O25 - 1071
The relationship between the preovulatory and postovulatory progesterone serum concentration and the outcome of the
in vitro fertilization – a pilot study
Emina Ejubovic, Bosnia and Herzegovina

O06 – 1374
Assessment of ovarian reserve tests for prediction of oocyte yield and chance of pregnancy after ovulation induction
Ludmila Barbakadze, Georgia

O13 – 1178
Galectin-3 levels and DNA fragmentation index in ejaculated spermatazoa of men with infertility
Gamze Sinem Caglar, Turkey

O17 – 1443
An evaluation of ovarian response and pregnancy rates with the use of growth hormone as an adjunct to IVF in poor
responders with AMH as biomarker
Mohamed Tasneem, South Africa

O24 – 1034
The effects of follicular fluid and serum 25- hydroxy vitamin D (25OH-D) levels on IVF/ ICSI cycles outcomes; a prospective
cohort STUDY
Mahbod Ebrahimi, Iraq

O33 - 1350
How much dominant follicles should be induced to achieve a good quality embryo among poor responders during COH
for IVF-ET? A retrospective study
Serkan Kahyaoglu, Turkey

O67 – 1092
Higher levels of follicular fluid sRAGE predict a better ovarian reserve and better IVF-ET pregnancy outcomes
BiJun Wang, China

O41 – 1524
Serum bisphenol A (BPA) concentration in pregnant women and umbilical cord and its impact on testis development and
function of their male newborns
Monika Lukasiewicz, Poland
O43 - 1059
Emotional intelligence in women undergoing infertility treatment: Is there a relation with etiology of infertility?
Fahimeh Mollaahmadi, Iran

O45 - 1205
Risk factors for unexpected follicular stagnation and treatment outcome with LH supplementation
Sezcan Mumusoglu, Turkey

O44 – 1060
Congenital malformations in newborns after ART
Fahimeh Mollaahmadi, Iran

10:00-10:20 COFFEE BREAK & POSTER VIEWING

10:20-11:50 ORAL PRESENTATIONS - FETOMATERNAL MEDICINE

Chairpersons: Aris Antsaklis, Greece
Carla Peixoto, Portugal

O52 - 1376
Cervical length measurement in non-pregnant women – are we over diagnosing short cervix in pregnancy?
Carla Peixoto, Portugal

O05 – 1285
Mifepristone as a method of choice for cervical ripening in comparison with Foley’s catheter and laminaria sticks
Margarita Bakleicheva, Russia

O09 - 1149
Pregnancy outcomes in inflammatory bowel disease - a retrospective study
Sara Bernardes da Cunha, Portugal

O07 - 1343
Polymorphism of IL-1β, TNF-α, IL-1Ra, IL-4 cytokine genes in pathogeneses of preterm delivery
Vera Belousova, Russia

O12 – 1333
The effect of early skin to skin contact on neonatal compliance and breastfeeding success in preterm labory
Nuriye Büyükkayaci Duman, Turkey

O16 - 1287
The use of sildenafil in early onset intrauterine growth restriction
Olivia Anne Cassar, Malta

O19 - 1394
Use of misoprostol in the pregnancy termination in the second trimester in women with previous caesarean section
Saimir Cenameri, Albania

O22 - 1329
Estimation of placental kisspeptin level in preeclamptic pregnancies
Anna Drobintseva, Russia
FRIDAY, DECEMBER 1, 2017

O26 – 1458
How reliable are WBC count and CRP to monitor for intra-amnionic infection?
Aulona Gaba, Austria

O37 - 1444
Abdomino-pelvic packing revisited: An overlooked technique for managing intractable obstetric hemorrhage
Allen Lavina, UK

O42 – 1401
Pregnancy outcome after recent laparoscopic myomectomy – a case report
Matilde Martins, Portugal

O62 - 1082
A rare life-threatening complication in early pregnancy
Fatima Taki, UK

11:50-12:10 BREAK

12:10-13:40 ORAL PRESENTATIONS - GYNECOLOGY/INFERTILITY HALL E

Chairpersons Gary Ventolini, USA
Marco Noventa, Italy

O46 - 1240
Effects of autologous platelet-rich plasma on endometrial expansion in patients undergoing frozen-thawed embryo transfer: A double blind randomized sham-controlled trial
Leila Nazari, Iran

O47 - 1550
Ultrasound guided embryo transfer: Summary of evidences to close the open debate and unlock new perspectives. Literature review and meta-analysis
Marco Noventa, Italy

O48 - 1248
Elevated level of Afamin and lipid dysregulation in seminal and follicular fluids could be related with male and female infertility
Rocío Nuñez-Calonge, Spain

O59 – 1472
Does bariatric surgery improve assisted reproductive technology outcomes in obese infertile women?
Loredana Maria Sosa Fernandez, Italy

O36 – 1512
Metabolites profiling in culture mediums of day-5 human embryos
Elena Kulakova, Russia

O32 – 1530
Should be 3D SIS performed prior to hysteroscopy in patients with endometrial changes?
Zaklina Jurisic, Serbia
O38 – 1110
Study on apoptosis of neurons in mouse cerebrum by using tunnel and expression of caspase3, 9 after live three-dimensional ultrasound radiation
Jianhui Li, China

O60 - 1084
Biosignals: The way of controlling the emotional state during infertility treatments
Joana Sousa, Portugal

O18 – 1502
The effects of HIV infection and antiretroviral therapy on ovarian reserve and IVF success
Cassim Mohamed Iqbal, South Africa

O58 – 1276
Secondary amenorrhea as a symptom of hereditary hemochromatosis (HH)
Ida Marija Šola, Croatia

O66 - 1297
Does HPV vaccination affect sexual behavior in adolescent and young women?
Anastasia Vatopoulou, Greece

O68 – 1464
Health beliefs of university students about human papilloma virus infection and vaccination
Ruken Yağış, Turkey

13:40-14:30 LUNCH BREAK

14:30-16:30 ORAL PRESENTATIONS - GYNECOLOGY

Chairpersons
Andrea Weghofer, Austria
Agung Dewanto, Indonesia

O04 – 1368
The role of cell proliferation in the invasion process of endometrioma in chick chorioallantoic membrane: A preliminary study
Regina Arumsari, Indonesia

O21 – 1335
Comparison of invasion process of peritoneal endometriosis and endometrioma tissue in chick chorioallantoic membrane: A preliminary study
Agung Dewanto, Indonesia

O28 – 1212
Contraception counseling project for women attending a gynecology clinic in Turkey: Does it work?
Funda Gungor Ugurlucan, Turkey

O34 – 1341
Beneficial effects of onion and cinnamon on sex hormones and serum antioxidant capacity in female rats exposed to power frequency electric and magnetic fields
Arash Khaki, Iran
FRIDAY, DECEMBER 1, 2017

P36 - 1088
Denosumab and cancer cell migration
Serge Ginter, Luxembourg

O29 – 1162
Case reports of different malignant GTN with similar ultrasound appearance
Bojana Ivic, Serbia

O35 - 1247
Comparison of surgical techniques for treatment of submucosal myoma
Vera Korennaya, Russia

O39 - 1457
Outcomes of colorectal anastomoses during operation for gynecologic malignancy
Sang Woo Lim, South Korea

O54 - 1409
Experience of sigmoid colon vaginoplasty in vaginal agenesis with failure of previous surgical procedures
Muhammad Nurhadi Rahman, Indonesia

O40 – 1572
Roma women - an insight on their standpoints regarding reproductive health
Marjeta Logar Čuček, Slovenia

O20 - 1310
The evaluation of the use of complementary alternative medicine (CAM), symptom severity and quality of life in menopausal women: Turkish samples
Dilek Coşkuner Potur, Turkey

O02 - 1257
Attitudes and related factors about family planning methods of refugee women in Turkey
Hacer Alan Dikmen, Turkey

O55 - 1096
Comparison of sufficient and insufficient vitamin D in treatment of infertile PCOS patients
Athar Rasekh Jahromi, Iran

16:30-16:50 COFFEE BREAK & POSTER VIEWING
16:50-18:20 ORAL PRESENTATIONS - FETOMATERNAL MEDICINE

Chairperson: Asli Sis Celik, Turkey

O49 – 1478
Placental microRNA expression in pregnancies complicated by gestational diabetes mellitus and preeclampsia
Vladimir Pakin, Russia

O53 – 1400
Stillbirth analysis: A 10-year retrospective study in a Portuguese maternity
Ana Portela Carvalho, Portugal

O57 – 1531
The rates of preconception care in Turkish pregnant women, affecting factors and the quality of care
Asli Sis Celik, Turkey

O64 – 1262
The role of renin-angiotensin genes polymorphisms in the etiology of early and late PE
Elena Timokhina, Russia

O71 – 1223
Surgical management of incompetent cesarean scar in pregnancy – it is a new obstetrical problem
Nikolay Zharkin, Russia

O01 - 1518
Case report: Postpartum syphilis, periureteral laceration, and perineal rupture after vaginal delivery with shoulder dystocia
Dedy Aria Aditia, Indonesia

O14 - 1213
Problems experienced by obese pregnant women in third-trimester and effects of obesity on quality of life
Ruveyde Can, Turkey

O15 – 1159
Traumatic births affect both mother and newborn negatively, for sure; what about midwife? A literature gap in turkey!!!
Seyhan Cankaya, Turkey

O30 – 1313
Risk factors for pregnancy-associated venous thromboembolism in a multi-ethnic Asian population
Sandra Jaya-Bodestyne, Singapore

O69 - 1227
The investigation of nurses' self-efficacy perceptions with problem-solving abilities
Mine Yilmaz Kocak, Turkey

O70 - 1289
Midwifery students' information level and attitudes towards lesbians and gay males in Turkey
Sema Dereyi Yilmaz, Turkey

O72 - 1304
The effect of vitamin B1 on the change of appetite related to premenstrual syndrome in young women
Sareh Abdollahifard, Iran
SATURDAY, DECEMBER 2, 2017

INFERTILITY/ART/IVF

08:30-10:00  ASSISTED REPRODUCTION: FUTURE PERSPECTIVES

Capsule
Individualization of stimulation, “freeze all” and social freezing are flowing into our discipline and, as usual, stirring considerable controversies

Chairpersons
Bart Fauser, The Netherlands
Zion Ben Rafael, Israel
Andrea Weghofer, Austria

08:30-09:15  Debate: Individualized stimulation: The way to go or an unnecessary effort?

Pro: Dominique de Ziegler, France
Con: Frank Broekmans, The Netherlands

Discussion

09:15-09:35  The dilemma of social freezing: “Houston we have a problem”
Zion Ben Rafael, Israel

09:35-10:00  The “freeze all” concept in assisted reproduction: An option for everyone?
Andrea Weghofer, Austria

10:00-10:20  COFFEE BREAK & POSTER VIEWING

10:20-11:50  TREATMENT OF FIBROIDS

Capsule
The incidence of infertility and uterine fibroids increases with women’s increasing age, and so does the association between the two. Non-surgical solutions diversify the doctor’s and patient’s choices

Chairpersons
Christian Egarter, Austria
Bart Fauser, The Netherlands

10:20-10:40  SPRM: Mode of action and latest recommendations
Christian Egarter, Austria

10:40-11:05  Fibroids and infertility
Kazem Nouri, Austria

11:05-11:50  Debate: Current management of UF: Surgery or medical treatment for ALL?
Surgical management for ALL: Attilio di Spiezio Sardo, Italy
Medical management for ALL: Josep Estadella Tarriel, Spain

Discussion

11:50-12:10  BREAK
**12:10-13:40**  
**PGS/PGD**  
*In collaboration with the Hungarian Human Reproduction Society (HHRS)*

**Capsule**  
While the technique seems to be improving, the question now is can universal PGS improve the results of ART or worsen them?

**Chairpersons**  
Attila Vereczkey, Hungary  
Elpida Fragouli, UK  
David Albertini, USA

**12:10-12:55**  
**Debate:** PGS  
All embryos should be tested: Simon Fishel, UK  
No embryos should be tested: Norbert Gleicher, USA  
Discussion

**12:55-13:40**  
**Debate:** Detection of mosaicism in trophectoderm biopsies  
For: Nathan Treff, USA  
Against: Antonio Capalbo, Italy  
Discussion

**13:40-14:30**  
**LUNCH BREAK**

**14:30-16:30**  
**ROLE OF MITOCHONDRIA IN IVF SUCCESS**  
*HALL A*

**Capsule**  
Mitochondria, the only (animal) organelles containing DNA outside of the nucleus, are essential for normal fertilization and embryonic development; can they serve as biomarkers for implantation?

**Chairpersons**  
Rene Frydman, France  
Norbert Gleicher, USA

**14:30-14:50**  
Mitochondrial DNA (mtDNA) can serve as a biomarker of pre-implantation embryo viability  
Elpida Fragouli, UK

**14:50-15:15**  
Mitochondria as a biomarker for implantation  
Nathan Treff, USA

**15:15-15:35**  
PGS on culture media  
Wilfried Feichtinger, Austria

**15:35-16:00**  
Detection pregnancy potential of mosaic embryos  
Santiago Munné, USA

**16:00-16:30**  
**Special COGI-RBMO countercurrent lecture:**  
*Mitochondria are prone to DNA mutations due to the lack of protective histones. Boosting mitochondrial function are used to rejuvenate older age oocytes. Where is the proof?*

Boosting mitochondrial function in oocytes increases success: No proof has yet been provided  
Simon Fishel, UK

**16:30-16:50**  
**COFFEE BREAK & POSTER VIEWING**
### SATURDAY, DECEMBER 2, 2017

<table>
<thead>
<tr>
<th>16:50-18:20</th>
<th>Q &amp; A</th>
<th>HALL A</th>
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<tbody>
<tr>
<td><strong>Capsule</strong></td>
<td>Panelist-audience interaction on acute clinical and lab issues</td>
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</tbody>
</table>
| **Chairpersons** | **Zion Ben Rafael**, Israel  
**Rene Frydman**, France |
| **Panelists** | **Wilfried Feichtinger**, Austria  
**Simon Fishel**, UK  
**Sjoerd Repping**, The Netherlands  
**Basil Tarlatzis**, Greece  
**Nathan Treff**, USA |

Repeated bad quality embryos? Is it the lab or stimulation?  
What to do with RIF?  
Time-lapse  
POR: Individualization of treatment; how?  
Hysteroscopy to all before IVF or by indication?  
PCOS: Individualization of treatment; how?  
ICSI to all or by indication  
Evidence-based luteal support: What, when and for how long?  
Severe Asherman: What is the solution? Surgical? Stem Cells?  
Mosaicism: What is the incidence? Why do some PGS labs report mosaicism and others not?  
Should mosaic embryos be transferred? What are the risks to the new-born and the practitioners responsible for their transfer?
SATURDAY, DECEMBER 2, 2017

INFERTILITY/ART/IVF

08:30-10:00  ENDOMETRIOSIS

Capsule Many basic questions regarding the treatment of endometriosis remain unanswered

Chairpersons Mark Hans Emanuel, The Netherlands
Gab Kovacs, Australia
Leila Adamyan, Russia

08:30-08:50  Deep Endometriosis: Back to less aggressive surgery?
Jacques Donnez, Belgium

08:50-09:35  Debate: Endometrioma before IVF surgery or puncture?
Surgical removal first: Jacques Donnez, Belgium
Conservative therapy including puncture first: Kazem Nouri, Austria

Discussion

09:35-10:00  Diagnosis of endometriosis: What is new?
Leila Adamyan, Russia

10:00-10:20  COFFEE BREAK & POSTER VIEWING

10:20-11:50  TIME LAPSE

Capsule Time lapse seems like the right tool to close the gaps between the limited examination performed in the IVF laboratory and the dynamic nature of embryonic growth. Continuous monitoring offers information on positive and negative events. Time lapse also offers a list of secondary advantages, but does it allow for automatic embryo selection?

Chairpersons Elpida Fragouli, UK
Norbert Gleicher, USA
Mattheos Fraidakis, Greece

10:20-10:40  Time lapse to optimize embryo culture: First step towards automation in IVF
Laura Rienzi, Italy

10:40-11:25  Debate: Time lapse: What have we learned so far? Do universal algorithms work?
No: Rita Vassena, Spain
Yes: Thomas Ebner, Austria

Discussion

11:25-11:50  Embryo development on day 3-4: What can we learn?
Rita Vassena, Spain

11:50-12:10  BREAK
### SATURDAY, DECEMBER 2, 2017

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Hall</th>
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<tbody>
<tr>
<td><strong>12:10-13:40</strong></td>
<td><strong>SURGICAL SOLUTIONS FOR IMPLANTATION FAILURE</strong></td>
<td><strong>HALL B</strong></td>
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<tr>
<td>Capsule</td>
<td>What proof do we have to support the endometrial surgical procedures to enhance implantation?</td>
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<tr>
<td>Chairpersons</td>
<td><strong>Kazem Nouri</strong>, Austria&lt;br&gt;<strong>Victor Gomel</strong>, Canada&lt;br&gt;<strong>Eero Varila</strong>, Finland</td>
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<tr>
<td>12:10-12:30</td>
<td>Endometrial scratching prior to ART is being routinely used in many centers, but it is too controversial to be routine&lt;br&gt;<strong>Mark Hans Emanuel</strong>, The Netherlands</td>
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<tr>
<td>12:30-12:55</td>
<td>Can we make the endometrium more receptive?&lt;br&gt;<strong>Gab Kovacs</strong>, Australia</td>
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<tr>
<td>12:55-13:40</td>
<td><strong>Debate</strong>: Does treating thin endometrium and Asherman syndrome require surgery or stem cells?&lt;br&gt;<strong>Proposition</strong>: Stem cells for thin endometrium and Asherman syndrome&lt;br&gt;<strong>Xavier Santamaria</strong>, Spain&lt;br&gt;<strong>Opposition</strong>: You don't need stem cells; you need good surgeons&lt;br&gt;<strong>Mark Hans Emanuel</strong>, The Netherlands&lt;br&gt;<strong>Discussion</strong></td>
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<td><strong>13:40-14:30</strong></td>
<td><strong>LUNCH BREAK</strong></td>
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<tr>
<td><strong>14:30-16:30</strong></td>
<td><strong>ADENOMYOSIS AND FERTILITY</strong>&lt;br&gt;<em>In collaboration with the Turkish Society of Reproductive Medicine</em></td>
<td><strong>HALL B</strong></td>
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<tr>
<td>Chairpersons</td>
<td><strong>Ahmet Zeki İşik</strong>, Turkey&lt;br&gt;<strong>Baris Ata</strong>, Turkey</td>
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<tr>
<td>14:30-15:00</td>
<td>Is vaginal ultrasound all you need to diagnose adenomyosis?&lt;br&gt;<strong>Baris Ata</strong>, Turkey</td>
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<tr>
<td>15:00-15:30</td>
<td>How can surgery improve fertility in adenomyosis? The right procedure for the right patient&lt;br&gt;<strong>Erbil Dogan</strong>, Turkey</td>
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<tr>
<td>15:30-16:00</td>
<td>How to improve assisted reproductive technology outcome for women with adenomyosis&lt;br&gt;<strong>Gurkan Bozdağ</strong>, Turkey</td>
<td></td>
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<tr>
<td>16:00-16:30</td>
<td>Pregnancy outcome in women with adenomyosis&lt;br&gt;<strong>Ersa Kılıçdağ</strong>, Turkey</td>
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<tr>
<td><strong>16:30-16:50</strong></td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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</table>
Chairpersons  
Victor Gomel, Canada  
Pierluigi Benedetti Panici, Italy  

**O11 - 1353**  
EVA - a randomized controlled trial of lateral episiotomy versus no episiotomy in vacuum assisted delivery-implementation challenges  
Sophia Brismar Wendel, Sweden  

**O08 – 1582**  
Accuracy of pelvic ultrasound in preoperative evaluation of uterine myomas: A prospective cohort study  
Pierluigi Benedetti Panici, Italy  

**O50 – 1584**  
Laparoscopic peritoneal vaginoplasty (Luohu II Procedure) in MRKH syndrome: 10 years’ experience in 885 patients  
Hongxin Pan, China  

**O03 – 1370**  
Medication therapy for uterine fibroids: An alternative to surgery  
Margarita Andreeva, Russia  

**O31 – 1495**  
Is Ulipristal effective in treatment of uterine fibroids?  
Aleksandar Jurisic, Serbia  

**O23 - 1562**  
Validation of an augmented reality ultrasound app – UPPS (Ultrasound aPP Study)  
Florian Ebner, Germany  

**O63 – 1099**  
Micro volume freezing of human spermatozoa with minimal non-permeable cryoprotectant by using cryotop  
Van Tang, Vietnam  

**O56 - 1461**  
Knowledge and technology transfer of expandable squem techniques in microsurgery of male infertility from high-cost to low-cost clinical hubs  
Arben Rrugia, Italy  

**O27 - 1087**  
Low dose aspirin and wellageing  
Serge Ginter, Luxembourg  

**O10 - 1067**  
Tri-nucleotide consortium of androgen receptor associated with retrogressive sperm motility  
Shahzad Bhatti, Pakistan
SATURDAY, DECEMBER 2, 2017

GYNECOLOGY/MENOPAUSE/FAMILY PLANNING  HALL C

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chairpersons</th>
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<tbody>
<tr>
<td>08:30-10:00</td>
<td>HPV SCREENING AND SCREENING STRATEGIES</td>
<td>F. Xavier Bosch, Spain, Thomas Iftner, Germany</td>
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<tr>
<td>Capsule</td>
<td>Most European recommendations support the adoption of validated HPV tests as the stand-alone primary screening tool. Coordinated strategies of screening and vaccination are the subject of intense research and evaluation</td>
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<td>Chairpersons</td>
<td>F. Xavier Bosch, Spain, Thomas Iftner, Germany</td>
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<tr>
<td>08:30-09:00</td>
<td>Tests for HPV screening: Clinical validation</td>
<td>Thomas Iftner, Germany</td>
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<tr>
<td>09:00-09:30</td>
<td>Guidelines for HPV screening in Europe</td>
<td>Mario Poljak, Slovenia</td>
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<tr>
<td>09:30-09:50</td>
<td>The need for coordinated programs of vaccination and screening</td>
<td>F. Xavier Bosch, Spain</td>
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<tr>
<td>09:50-10:00</td>
<td>Discussion: The impact of HPV screening in the re-organization of health services</td>
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<td>10:00-10:20</td>
<td>COFFEE BREAK &amp; POSTER VIEWING</td>
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<tr>
<td>10:20-12:05</td>
<td>HPV VACCINES: LIGHTS AND SHADOWS</td>
<td>F. Xavier Bosch, Spain, Elmar Joura, Austria</td>
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<tr>
<td>Capsule</td>
<td>Despite massive data confirming the effectiveness and safety of HPV vaccines, some vaccination programs in the world have been challenged by non-scientifically supported claims of side effects</td>
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<td>Chairpersons</td>
<td>F. Xavier Bosch, Spain, Elmar Joura, Austria</td>
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<tr>
<td>10:20-10:45</td>
<td>The adoption of HPV vaccines in the world and the axis of assessment of vaccine safety</td>
<td>F. Xavier Bosch, Spain</td>
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<tr>
<td>10:45-11:10</td>
<td>The promises of the second-generation HPV vaccines</td>
<td>Elmar Joura, Austria</td>
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<td>11:10-11:35</td>
<td>Vaccine confidence and vaccine hesitancy: The case in Denmark</td>
<td>Susanne Krüger Kjaer, Denmark</td>
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<td>11:35-11:50</td>
<td>Discussion: The role of the gynecologists in HPV vaccination</td>
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<tr>
<td>11:50-12:05</td>
<td>Oral abstract contribution to the panel:</td>
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<td>A novel HPV detection method</td>
<td>Changping Zou, USA</td>
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<td>12:05-12:10</td>
<td>BREAK</td>
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</table>
### 12:10-13:40  
**4 METHODS FOR CREATING NEOVAGINA - AND THE WINNER IS…**  
*In cooperation with the International Federation of Infant and Juvenile Gynecology (FIGIJ)*

**Capsule**  
Neovagina is a dramatic surgery for the adolescent. Innovative choices may ease the experience

**Chairpersons**
- George K. Creatsas, Greece
- Pierluigi Benedetti Panici, Italy
- Gabriele Tridenti, Italy

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<tr>
<td>12:10-12:30</td>
<td>Neovagina using autologous cultured vagina tissue</td>
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<td><strong>Pierluigi Benedetti Panici</strong>, Italy</td>
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<tr>
<td>12:30-12:55</td>
<td>Vulvovaginoplasty</td>
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<td><strong>George K. Creatsas</strong>, Greece</td>
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<tr>
<td>12:55-13:20</td>
<td>Creation of a neovagina by Davydov’s laparoscopic modified technique patients with Rokitansky syndrome</td>
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<td><strong>Leila Adamyan</strong>, Russia</td>
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<td>13:20-13:40</td>
<td>Luohu procedure in female genital tract congenital malformation (the experience based on 1000+ vaginoplasty)</td>
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<td><strong>Guangnan Luo</strong>, China</td>
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**13:40-14:30**  
**LUNCH BREAK**

### 14:30-16:30  
**WILL HRT EVER REBOUND TO PRE-WHI?**

**Capsule**  
15 years after WHI, is it still possible that without a paradigm shift the HRT will never rebound to its previous level?

**Chairpersons**
- Andrea R. Genazzani, Italy
- Christian Egarter, Austria

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>14:30-15:15</td>
<td><strong>Debate</strong>: HRT: Have the risks been overestimated? Will it rebound to the pre-WHI era?</td>
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<tr>
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<td>Yes: <strong>Tommaso Simoncini</strong>, Italy</td>
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<td>No: <strong>Sven Skouby</strong>, Denmark</td>
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<tr>
<td>15:15-16:00</td>
<td><strong>Debate</strong>: Vaginal application of sex steroids: The future in women’s health?</td>
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<tr>
<td></td>
<td>Yes: <strong>Andrea R. Genazzani</strong>, Italy</td>
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<tr>
<td></td>
<td>No: <strong>Alessandra Graziottin</strong>, Italy</td>
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### 14:30-16:30  
**Special countercurrent lecture:**
Ovarian tissue re-implantation: The HRT of the future?  
**Jacques Donnez**, Belgium

<table>
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<tr>
<th>Time</th>
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<tr>
<td>16:00-16:30</td>
<td><strong>Special countercurrent lecture</strong>: Ovarian tissue re-implantation: The HRT of the future?</td>
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<td><strong>Jacques Donnez</strong>, Belgium</td>
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**16:30-16:50**  
**COFFEE BREAK & POSTER VIEWING**
### SATURDAY, DECEMBER 2, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>16:50-18:20</td>
<td><strong>OCs COMPLICATIONS: IMPACT ON DEPRESSION AND SUICIDE</strong></td>
<td>HALL C</td>
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<tr>
<td>Capsule</td>
<td>Did we miss or downplay the risks and complications of OCs?</td>
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<tr>
<td>Chairpersons</td>
<td>Santiago Palacios, Spain</td>
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<tr>
<td></td>
<td>Mireille Merckx, Belgium</td>
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<td>16:50-17:10</td>
<td>Contraceptives and thrombotic risks: What is the true risk?</td>
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<td></td>
<td>Sven Skouby, Denmark</td>
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<tr>
<td>17:10-17:55</td>
<td><strong>Debate:</strong> Is depression a major or a minor side effect?</td>
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<tr>
<td></td>
<td>Yes, depression is a major side effect: Øjvind Lidegaard, Denmark</td>
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<tr>
<td></td>
<td>No, depression is not a major side effect: TBA</td>
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<tr>
<td></td>
<td>Discussion</td>
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<tr>
<td>17:55-18:20</td>
<td>OCs and sexual dysfunction</td>
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<td></td>
<td>TBA</td>
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### SATURDAY, DECEMBER 2, 2017

**FETOMATERNAL MEDICINE**

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<thead>
<tr>
<th>Time</th>
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<th>Location</th>
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<tr>
<td>08:30-10:00</td>
<td>UTERINE NICHE</td>
<td>HALL D</td>
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**Chairpersons**

- Isaac Blickstein, Israel
- Aris Antsaklis, Greece

**Capsule**

High rate of cesarean sectioning increases the chances to encounter scar defects in future pregnancy. Should it be treated first?

<table>
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<tr>
<th>Time</th>
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<tr>
<td>08:30-08:50</td>
<td>Cesarean scar pregnancy</td>
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<td>Samir Helmy-Bader, Austria</td>
</tr>
</tbody>
</table>

**08:50-09:35**

**Debate:** Surgical management of cesarean scar defect (Niche) before further fertility

- **Yes:** Julian Marschalek, Austria
- **No:** Heinrich Husslein, Austria

**Discussion**

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<th>Time</th>
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<tr>
<td>09:35-10:00</td>
<td>The golden minute of twin B</td>
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<tr>
<td></td>
<td>Isaac Blickstein, Israel</td>
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**10:00-10:20**

**COFFEE BREAK & POSTER VIEWING**

**10:20-11:50**

**EMERGENCIES IN PERINATOLOGY**

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<th>Time</th>
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<th>Location</th>
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<tbody>
<tr>
<td>10:20-10:50</td>
<td>Amniotic fluid emboli: Radical change in our outlook</td>
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<td></td>
<td>Dan Farine, Canada</td>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>10:50-11:20</td>
<td>Intrapartum emergencies in twin births</td>
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<tr>
<td></td>
<td>Isaac Blickstein, Israel</td>
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<th>Location</th>
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<tr>
<td>11:20-11:50</td>
<td>CIN 2-3 in pregnancy: Observation or LLETZ in first trimester</td>
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<td></td>
<td>Efraim Siegler, Israel</td>
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**11:50-12:10**

**BREAK**
## SATURDAY, DECEMBER 2, 2017

### 12:10-13:40 THROMBOSIS AND BLEEDING  
**HALL D**

**Capsule**
Thrombosis and bleeding result in emergency situations that ought to be prevented

**Chairpersons**
- Peter Husslein, Austria
- Petra Pateisky, Austria

- **12:10-12:30** Management option for suspected placenta accreta  
  Dieter Bettelheim, Austria

- **12:30-12:55** Universal post-partum thromboprophylaxis?  
  Dorit Blickstein, Israel

- **12:55-13:15** Midwife deliveries in a university clinic setting  
  Peter Husslein, Austria

- **13:15-13:40** FIGO guidelines for PPH  
  Dan Farine, Canada

### 13:40-14:30 LUNCH BREAK

### 14:30-16:30 CONTROVERSIAL ISSUES IN PRETERM BIRTH  
**HALL D**

**Capsule**
The two major common risks of pregnancy are associated. Do we have a new understanding?

**Chairpersons**
- Isaac Blickstein, Israel
- Basky Thilaganathan, UK

- **14:30-14:50** Preeclampsia and fetal congenital heart defects  
  Julia Binder, Austria

- **14:50-15:15** The long-term cardiovascular consequences of SGA  
  Lila Seidl-Mlczoch, Austria

- **15:15-16:00** Debate: Steroids for late preterm birth?  
  **Yes:** Dan Farine, Canada  
  **No:** Gerard Visser, The Netherlands  
  Discussion

- **15:15-16:00** Special countercurrent lecture:  
  Alternative means to arrest premature contractions? Using blue light suppresses melatonin and acute preterm contractions and birth  
  James Olcese, USA

### 16:00-16:30 SPECIAL COUNTERCURRENT LECTURE:  
**HALL D**

### 16:30-10:50 COFFEE BREAK & POSTER VIEWING
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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| 16:50-18:20  | CESAREAN SECTION         | **Capsule** The high rate of CS causes secondary problems and raises questions that have to be addressed  
**Chairpersons**  
Isaac Blickstein, Israel  
Heinrich Husslein, Austria  

| 16:50-17:35  | Debate: Is there a minimal advised period before conception after C-section? | **Proposition:** Wait 6 or 12 months before pregnancy  
Gerard Visser, The Netherlands  
**Opposition:** No time limit before new pregnancy after CS  
Martin Langer, Austria  
Discussion |

| 17:35-18:20  | Debate: Induction of labor decreases the CS rate | **Yes,** induction of labor decreases CS rate: Aris Antsaklis, Greece  
**No,** induction of labor increases CS rate: Martin Langer, Austria  
Discussion |
The 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)
Vienna, Austria • November 30 - December 2, 2017

INVITED SPEAKERS’ ABSTRACTS

CREATION OF A NEOVAGINA BY DAVYDOV’S LAPAROSCOPIC MODIFIED TECHNIQUE IN PATIENTS WITH ROKITANSKY SYNDROME: CURRENT POSSIBILITIES

L.V. Adamyany, A.A. Stepanian, Russian Federation

Multiple successful methods of neovagina creation are currently used. The pearls for minimizing complications and providing maximal results for the surgeon employing a laparoscopic-assisted peritoneal colpoposcopy technique were described. Laparoscopic-assisted peritoneal colpoposcopy has proven to be reliable and effective method of neovagina creation associated with minimal morbidity and excellent functional and anatomical results. It can be successfully used in patients with vaginal agenesis with or without rudimentary uterine and in patients with previously unsuccessful treatments. New methods of diagnosis and reconstructive surgical treatment of patients with genital malformations was developed and introduced into clinical practice in the Department of Operative Gynecology of the National Medical Research Center for Obstetrics, Gynecology and Perinatology named after V.I. Kulakov. Since the experience since 1992 involves more than 300 patients who underwent this surgery. Long-term evaluation in operated patients revealed an 87.8 % satisfaction rate as compared with 76 % satisfaction rate in the control group and indicated a functional vaginal length of 12.46 ± 1.16 cm with anatomical vaginal length of 10.87 ± 1.0 cm, and a minimal complications rate. While technical and methodological advancements for neovagina formation continue to develop, research that further elucidates the factors in the development of vaginal agenesis, studies related to concomitant pathology in the patients, and investigations into the use of cellular technologies for the formation of auto-genital vaginal in women with functional uterine with vaginal and cervical aplasia would be of a significant importance. Special considerations related to endometriosis in women with mullerian anomalies need further investigation as well. Two new techniques of peritoneal sheets relegating during laparoscopic colpoposcopy with the use of pelvic peritoneum (without vaginal approach) were presented. Proposed methods provide reliable peritoneal sheets retention at the stage of its opening, downgrading and fixing to the edge of peritoneal incision. There is no need for additional fixing of the peritoneal edges with clips. That approach enforced more freedom for manipulation on the peritoneal sheets in the vaginal tunnel. Moreover, it facilitates the operation and minimizes intraoperative complications. Moreover, colpoposcopy technique in women with uterine malformations associated with endometriosis and adenomyosis and in women with Rokitansky syndrome in case of adenomyosis detection in uterine remnants will be provided. New perspectives for the development of genital reconstructive surgery in the next decades would be determined by the success of basic scientific research. Significant influence will be due to the improvement of instrumentation in the reconstructive surgery, the supply of medicines, reagents, hemostatics, new sutures and synthetic meshes, procedures for adhesion formation prevention. However, the development of reconstructive surgery is not possible without improving of the precision surgical techniques.

DIAGNOSIS OF ENDOMETRIOSIS: WHAT IS NEW?

L.V. Adamyany, A.A. Stepanian, Russian Federation

Questions of diagnosis of endometriosis are in the field of scientific and clinical interest. Despite the rapid development of medicine, the diagnosis of endometriosis is still difficult. While the pathogenesis of endometriosis is still unknown, there is an average of 6-11 years delay in diagnosis following the onset of symptoms. The gold standard for the diagnosis of endometriosis is still laparoscopy followed by histological confirmation. There are no sufficiently sensitive and specific biomarkers of endometriosis detected in blood, urine, saliva, endometrium, etc. More than 100 biomarkers of endometriosis were proposed in different studies, but none of them have demonstrated sufficient diagnostic predictive value. Therefore, development of a reliable minimal- invasive or non-invasive diagnostic test is a top research priority. Over 8,000 patients with endometriosis were treated in the department of operative gynecology since 1991. In our department, we conducted a lot of research about early diagnosis of endometriosis and prediction of its occurrence. We have revealed that the mass spectrometry method can be used for early diagnosis of endometriosis by lipid investigation of blood plasma and peritoneal fluid. Moreover, we investigated the molecular and proteomic compositions in the samples of blood plasma and peritoneal fluid of patients with endometriosis, most of which were lipids pertaining to five major families: fatty acids, phospholipids, cholesterol, sphingomyelins di- and triglycerides. Microarray study detected an increased expression of 27 genes and decreased expression of 17 genes in eutopic endometrium of women with endometriosis. Such genes as FOS, EGR-1, FOSB, DUSP1, ZP3, PHLDB1, JUNB, JUN, EGR2, ESR1, MAP3K1, TP53, A20, MED12, PTCH1, MYC, and FOSL1 are usually overexpressed. A number of genes associated with histological changes of endometriosis, such as FOS, EGR-1, EGR-2, TP53, are already used as a marker for endometriosis. However, many multicentric studies that could adequately assess the effectiveness of these methods are needed for the introduction of modern diagnostic techniques in practice. Therefore, today the diagnosis of endometriosis remains one of the key object of numerous studies.

THE DILEMMA OF SOCIAL OOCYTES FREEZING - HOUSTON WE HAVE A PROBLEM!

Zion Ben Rafael

IVF Unit at Laniado Medical Center, Israel; Founder and Co-Chairman of the Congress on Controversies in Obstetrics Gynecology and Infertility (COGI)

Delayed marriage, late childbearing especially among the affluent countries and the financial crisis of the Y-generation contribute in some countries to the dramatic decline in birth rate and population. Family planning should ideally be completed before a woman reaches age 35, at which point fertility tends to drop at a faster rate. Women are usually aware of the risks of delayed childbearing, but they have subjective sense of security amidst the population that fertility treatments and IVF can always help, so they wait for the right partner or the right time, and it’s often may be too late. Social freezing has fueled the imagination of patients and doctors to think that it is also the solution for all young women who delays marriage and family planning to the fourth or fifth decade of life. At first sight, the issue seems straightforward. If done in a timely manner “social oocytes freezing” (SOF) can offer an efficient solution for delayed family planning and can freeze the potential to conceive for a later age (Lockwood et al. 2011) but there are no studies supporting the cost-effectiveness of this practice...Social freezing is a sort of insurance, where the full cost of the procedure must be paid upfront. However, the chances of usage of the eggs for the individual are unknown. Hence, the cost should be calculated as the actual cost multiplied by the expected usage, which as a rule is very low. Early freezing is associated with higher success but lower usage percentage and low cost-effectiveness and vice versa. The number of eggs needed to freeze at each age to give a fair chance of success differs and determine the cost. From one hand, ovarian physiology dictates that such freezing should be done at a younger age (25-35 years), when the chance of collecting and freezing a higher number of prime quality eggs is greater, while after 35 years the loss of fertility is much faster. However, between 25-35 years the chances optimization are too low to make it economically viable. In general, only 1 in 20-25 eggs collected (4-5%) will result in the delivery of a baby (Doyle et al. 2016). The mean number of eggs collected in a single cycle is 8-12, which requires 2-4 cycles at a cost of 6-15,000 US$ per cycle plus variable yearly storage cost for a decade or so. Few theoretical studies tried to contrast with the cost-effectiveness issue via-s-a-vis the usage rate. And found that freezing can be cost effective only if 50-60% of women return to use their eggs. Can this figure be reached? Mesen et al (2015) have found that the most cost-effective was at age 37, at a cost of $28,759 per additional live birth. Little benefit over no action was seen at ages 25-30 years (2.6%-7.1% increase), with societal cost of $465,508 per live birth! Moreover, if the probability of getting married was faster then the number of women who freeze eggs will decrease. Can we expected to ever reach 60% eggs available in 10 years. Until recently, this thought was not realistic. However, the current study allows to calculate that if all women between 25-35 years would freeze the eggs, only 3% maximal usage is expected and between age 35-39, if all women at frozen their eggs, only 24% will remain.
infertile and this can theoretically be the maximal usage rate. The main reason stated for not using the eggs is to get the first which drop the usage rate even further. Recent support to this calculation was provided by two studies showing that from 1468 women freezing their eggs between 1996-2014, only 137 (9.4%) managed to use their oocytes and only 40 babies were born (2.7% per patient). A second study (Hammarberg et al., 2017) of 193 women who stored their eggs between 1996 and 2004, only six women (3%) returned to use their frozen eggs and 3 patients got pregnant (1.5%). The utilization rate is far lower than the minimum usage of 50-60% that was calculated to be cost-effective. Assuming a modest tag price of $8,000 per patient than the societal cost of not using each baby would be cost between $300,00-500,000 and that assuming that only one cycle of egg banking and storage was used, otherwise the cost is double or triple. In conclusion, we should have more strict indications. As IVF treatments move from the public sectors to private hands, and as IVF is business-driven it is not easy even for the expert to decipher the scientific claims from the business-oriented claims. The fact that the sales agents of SOF are the same doctors who carry out the procedure and benefit financially carries a potential conflict. Cost-effectiveness of SOF is far less than being stated. It is important to present to the patients and the public clear and truthful information about the low numbers returning to use the eggs and the reasons. Women should know about the decrease in fertility after age 39, about the low statistical chances to find a partner after that age and about the advantages and disadvantages of SOF, including the chance that the frozen eggs may never be used, and the option of egg donation as cost-effective alternative.

MANAGEMENT OPTION FOR SUSPECTED PLACENTA ACCRETA?

Dieter Bettelheim
Division of Obstetrics and Feto-Maternal Medicine, Vienna General Hospital, Medical University of Vienna, Austria

Abnormal placental implantation occurs when placental trophoblasts invade into the superficial uterine endometrium (placenta accreta), into the myometrium (placenta increta), or beyond the uterine serosa (placenta percreta). This lecture deals with the incidence, diagnosis and therapy of this complication which seems to be more frequent in present time. The association between placenta previa accreta and preeclampsia increases. It seems to be obvious because the incidence of placenta accreta increases as the number of previous caesarean sections increases. Patients with an antepartum diagnosis of placenta previa, who have had a previous caesarean section should be considered at high risk for developing placenta accreta. In the event of placenta accreta, the third stage of labor is often prolonged and may be complicated by severe uterine atony, severe intrauterine hemorrhage, and often extensive life-saving surgical intercations such as hysterectomy and manipulation of major pelvic vessels. Massive blood and blood product transfusions are often the norm, and maternal morbidity is reported to be high. This is the reason why a targeted ultrasound screening should be performed for all women after 2 previous caesarean sections and/or placenta previa. Prenatal diagnosis of placenta percreta is feasible with high sensitivity and specificity for an experienced sonographer using colour doppler sonography. I will talk about the incidence, predisposing factors, diagnosis, clinical implications and management options of this condition by presenting an overview of our cases and our management of pregnancy and delivery in these complicated situations.

PREECLAMPSIA AND FETAL CONGENITAL HEART DEFECTS

Julia Binder, Austria

Congenital heart defects (CHD) affect up to 8 in 1000 live births. The major causes still remain undefined. An imbalance in angiogenic-antiangiogenic factors seems to be present both in the circulatory of preeclamptic women and in fetuses with congenital heart defects, suggesting a role in the development of the latter. However, recent data show an association between the presence of a fetus with CHD and the risk of developing early preeclampsia in this pregnancy, whereas early preeclampsia in a previous pregnancy is related to an increased risk of fetal CHD in the ongoing pregnancy. These findings are of significant clinical importance and deserve further attention.

DOES THE PILL CAUSE DEPRESSION?

Johannes Bitzer, Switzerland

Introduction: There is a longstanding controversy regarding the impact of combined hormonal contraceptives on mood. In a recent large registry data based study the risk of depression was significantly higher in COC users. Objective: Compare study results and analyse reasons for differences. Results: Several studies show improvement of mood in women with depression or premenstrual dysphoric disorder while using COCs with different progestogens. Other studies show deterioration of mood in COC users with associations to premenstrual dysphoric disorder. To test these differences research on PMS and PMDD shows a large individual responsiveness of the serotonin pathways and the GABA receptor to ovarian hormones pointing into the direction of individual vulnerability. In addition, psychosocial factors like negative life events, loss of sense in life, separation and personal losses have been described as having an important impact on depression. Conclusion: Women reporting mood deterioration while using CH are should be taken care of in a comprehensive way taking into account hormonal vulnerability to specific steroid hormones and the individual life context. Solutions should be searched including change of steroids, non-hormonal contraception and psychological counselling.

HORMONAL CONTRACEPTION AND FEMALE SEXUALITY

Johannes Bitzer, Switzerland

Introduction: Contraceptive methods give women and men the ability to separate sexual activity from reproduction. Thus, contraception and sexuality are intimately linked with each other and contraceptive and sexual behaviour influence each other. Problem: In some observational studies, the use of COC was associated with sexual dysfunctions. The EE induced elevated SHBG and subsequent diminution of free T is hypothesized to cause HSDD and low dose EE COCs in young predisposed women are considered to cause pain during intercourse. Methods: Review of the literature including observational studies, post marketing surveillance publications addressing OC use and sexual function and satisfaction. Results: Lack of experimental studies and methodological consistency with numerous uncontrolled possible confounders. Equivocal results showing increase and decrease in sexual function. No direct correlation between sexual desire and SHBG levels. A lack of studies comparing different progestogens. Hormonal contraceptives can interfere with sexual function by: a) having a positive or negative influence on physical and psychological wellbeing and on the user’s body image (skin, weight, pain, mood, menstruation etc.); b) interfering with sex hormone actions (increase of SHBG, decrease of free androgens, antioestrogenic action of progestogens etc.); c) interacting with intrapyschic conflicts about wish for a child, sense of sexual activity etc. (self-determination and emancipation versus manipulation); d) having an impact on the couple’s dynamics regarding sex and family planning (balance of gender, responsibility etc.) Conclusion: Sexual function and satisfaction are complex subjective experiences determined by many interacting variables. Subtle endocrine changes induced by COCs may in predisposed “vulnerable” women contribute to sexual dysfunction. Psychosocial assessment and counselling as well as evaluation of the impact on physical and mental wellbeing are important and eventually adaptation of EE dosage and change of the progestogen are to be considered.

DEBATE INDIVIDUALIZED STIMULATION: THE WAY TO GO OR UNNECESSARY EFFORT?

Frank J. Broekmans
Department for Reproductive Medicine, University Medical Center Utrecht, Netherlands

Assisted reproduction technology is increasingly applied as a treatment mode for couples with both explained and unexplained infertility. The first step in this treatment is the creation of multiple follicles with the purpose of obtaining the oocytes held within these follicles, creating embryos in the IVF laboratory and replacing the embryos into the uterine cavity. Controlled ovarian stimulation is mostly applied by using exogenous FSH. The response of the ovaries to this exogenous FSH exposure demonstrates a high degree of variation. From a clinical significance point of view the poor ovarian response defined as the yield of less than 4 oocytes is related to a clearly unfavorable prognosis for live birth, although much of this poor prognosis is in fact dictated by female age and not by the low egg number per se. At the other side of the spectrum excessive response arbitrarily defined as obtaining more than 15 oocytes at pick up will increase treatment risks for the patient and may even slightly limit the rates of live birth. It is therefore that many clinicians across the world try to foresee the ovarian response category in order to adjust the stimulation protocol with the expectation that the ovarian response can be brought into the normal range (5-15 oocytes) and that by doing so the prospects of pregnancy as well as the safety for the couple will improve. Prediction of ovarian response category today is mainly applied by using the Antil follicle Count or AntilHormone Method in the early follicle phase. Both relate to the number of antral follicles present at any time and the source for the number of dominant follicles that could grow in results to the application of exogenous FSH. As such, these two ovarian response with contradictory results and predict response, although factors such as female age and possibly body weight may add to this predictive information. It may be noted still that predictions will generally be false positive in
some 15% of cases, while only 60-70% of true out of the normal range responders will be identified. baseline the FSH stimulation dosage on such predictions will be imprecise preactive from the start. Recent large controlled trials have demonstrated that OTR based individualized dosing of the FSH preparation is not likely to alter the fate of the predicted poor responder but may help in reducing the risks of the predicted excessive responders. Unfortunately, the promises of earlier studies that individualized dosing would also affect live birth rates in the ART program as a whole have not been fulfilled. Specifically, in predicted poor responders the actual occurrence of a poor response in spite of slight adjustments in the stimulation protocol (with a maximum dosage of 225 IU per day) will mean that the couple is in a prognostic unfavorable category. There, the combination of low AMH or AFC and the first cycle poor response may help to decide whether continuation of the ART treatment is really feasible. the real gain of individualized FSH dosing could be the management of the hyper responding patient. The question then remains whether the AFC will be the prior screening test to select patients to undergo blood sampling for AMH assessment in order to confirm a sufficient risk of excessive response and apply reduced FSH dosage or antagonist co-medicated stimulation protocols. We may sincerely consider whether a standard dosage using an antagonist protocol, with the escape of GnRH agonist triggering in case of excessive ovarian reaction, with a freeze all strategy as second step, will not be the method to circumvent imprecise dose picking based on response tests with moderate precision.

ENDOMETRIAL CELLULAR SENESCENCE AND IMPLANTATION FAILURE
Jan J. Brosens
Division of Biomedicine, Warwick Medical School, UK & Tommy’s National Miscarriage Research Centre at University Hospitals Coventry & Warwickshire, UK

In mice, receptivity of the progesterone-primed endometrium is critically dependent on a transient rise in circulating E2 levels. By contrast, the human implantation window is not controlled by an E2 surge but coincides with differentiation of endometrial stromal cells (EnSCs) into specialized decidual cells. Following cell cycle exit at G0/G1, decidualizing EnSCs first mount a transient pro-inflammatory response, characterized by secretion of various inflammatory mediators. Exposure of the mouse uterus to this inflammatory response, characterized by secretion of various inflammatory mediators involved in endometrial receptivity. In parallel, IL-15 secreted by decidual cells activates uterine natural killer (uNK) cells, which then target and eliminate senescent cells through granule exocytosis. Thus, the systematic clearance of senescent EnSCs by uNK cells is not only required but also rejuvenates the endometrium at the time of embryo implantation. Our data infer that suboptimal replicative stress due to inadequate endometrial growth and/or excessive uNK cell activity predispose for implantation failure. Conversely, lack of endometrial mesenchymal stem cells (MSCs), heightened cellular senescence and an excessive and prolonged peri-replicative stress due to inadequate endometrial growth and/or which then target and eliminate senescent cells through granule exocytosis. This figure supports the extremely low level of mosaicism reported in natural and IVF pregnancies. Similarly, the clinical management of patterns consistent with the presence of mosaicism in a TE biopsy during preimplantation genetic diagnosis cycles (PGD-A) is still a controversial issue. Despite the fact that some contemporary comprehensive chromosomal screening platforms can detect mosaicism in cell mixture models with variable accuracy and many reproductive genetics laboratories are now routinely including embryonic mosaicism on their genetic reports, a diagnosis of certainty for mosaicism in PGD-A cycles is conceptually impracticable. Indeed, several technical and biological sources of errors clearly exist when trying to estimate mosaicism from a single TE biopsy in PGD-A cycles and must be understood to adequately guide patients during clinical care. At the present, reports of mosaicism should be avoided in blastocyst PGD-A cycles due to the several technical and biological issues present when attempting this type of diagnosis and the lack of evidence from non-selection studies. The observation of intermediate chromosome copy number profiles would be better reported as a score consistent with the presence of mosaicism and genetic counselling should be provided to guide patient’s decisions.

DETECTION OF MOSAICISM IN TROPHECTODERM BIOPSIES: AGAINST
Antonio Capalbo, Italy

Defining the actual incidence and prevalence of mosaicism in human blastocysts still remains a difficult task. The small evidence generated by animal and human studies does not support the existence of mechanisms involved in developmental arrest, clonal deletion or aneuploidy rescue for abnormal cells in euploid/aneuploid embryos during preimplantation development. However, studies in humans are mainly descriptive and lack functional evidences. The evidence on human blastocysts suggests that a mosaic euploid/aneuploid configuration is detected in around 5% of embryos. This figure supports the extremely low level of mosaicism reported in natural and IVF pregnancies. Similarly, the clinical management of patterns consistent with the presence of mosaicism in a TE biopsy during preimplantation genetic diagnosis cycles (PGD-A) is still a controversial issue. Despite the fact that some contemporary comprehensive chromosomal screening platforms can detect mosaicism in cell mixture models with variable accuracy and many reproductive genetics laboratories are now routinely including embryonic mosaicism on their genetic reports, a diagnosis of certainty for mosaicism in PGD-A cycles is conceptually impracticable.

ESTROGENS PROTECT AGAINST BREAST CANCER AND CAN BE USED IN SELECTED CASES FOR THE TREATMENT OF BREAST CANCER
Herjaan Coelingh Bennink, The Netherlands

Estrogens have a bad reputation in relation to breast cancer (BC) and hormone replacement therapy (HRT) has been blamed to increase the risk of BC. However, the Women’s Health Initiative (WHI) studies have confirmed many earlier observations, that it is not the estrogen, but the progesterin, that causes the increased risk, whereas estrogen-only treatment decreases the risk of BC. Estrogens are known to stimulate the growth of existing estrogen-receptor positive breast cancer, but estrogens are also an effective treatment of this malignancy. This contradictory knowledge is known as the “estrogen paradox”. The data summarised in this presentation demonstrate that high-dose estrogens are an effective treatment of advanced breast cancer, both as first-line treatment as well as for treatment after the occurrence of resistance to endocrine anti-estrogen treatment with tamoxifen (TAM) and aromatase-inhibitors (AIs). Essential for efficacy is an extended period of estrogen deprivation before the tumour is subjected to estrogen treatment (the “gap hypothesis”). Research on the mechanism of action has shown that apoptosis induced by estrogens is regulated via the estrogen receptor and growth factor signalling pathways. High-dose estrogens have a negative safety image in terms of side-effects and increased rates of cardiovascular disease, but the safety data from the literature do not give rise to major concerns. Conclusion: taking into account the observed clinical efficacy and the side-effect profile, high-dose estrogen should be considered as a valuable alternative before the use of chemotherapy in selected patients after failure of TAM and/or AIs.

VULVOVAGINoplasty
G. Creatsas, Greece

The Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome is a rare congenital abnormality of the female genital tract presented with aplasia of the uterus and the upper two-thirds of the vagina in an otherwise normal 46XX individual. The incidence is approximately one case in 4000 women. The syndrome is frequently associated with other non-gynecological defects, such as: urinary tract anomalies, vertebral deformities and to a lesser extent auditory and cardiac lesions. Furthermore the absence of the vagina and the uterus have a profound psychological impact on the young woman's sense of femininity, so that the demand for a sexual life makes the creation of a neovagina strongly advisable. Several techniques of vaginal reconstruction, surgical or nonsurgical, have been reported as the Creatsas vaginoplasty, the McIndoe operation, the Vecchietti technique and others. The Creatsas vulvo-perineoplasty is a modification of the Williams’ procedure. It is a simple, safe and quick operative method resulting in a functioning vagina, similar to normal. We developed our technique in 1981 and until now we have performed 254 cases.
In conclusion, the aim of all methods is the creation of a vaginal channel of adequate functional depth and width, with axial deviation similar to normal. Our experience shows that the Creatsas vaginoplasty is a simple, quick, and effective vulvo-perineoplasty that satisfies all the requirements.

INNOVATIVE CONTROLLED OVARIAN STIMULATION (COS) FOR ART
Dominique de Ziegler
Dept. of Obstetrics and Gynecology, Foch Medical Center – Université Paris Ouest, Suresnes, France

Controlled ovarian stimulation (COS) was developed for increasing the yield of ART by allowing the harvest of multiple oocytes and thus, the development of multiple embryos. The concept of COS therefore is to inhibit multiple follicular development by opposing the natural mechanism that limit the ovulatory quota to one in humans. This is achieved by opposed the mid-follicular phase decrease in FSH, which is responsible for both the LH and the smaller follicles of the cohort to atresia, while allowing the larger follicle to mature in a progressively LH dominant environment. Historically, the decrease in FSH has been antagonized by either stimulating endogenous FSH production – using clomiphene citrate or aromatase inhibitors – or administering exogenous FSH. The latter has been the most common mode of inducing COS in ART. In the menstrual cycle, follicular recruitment in induced by a FSH elevation during the inter-cycle interval, which classically peaks approximately on cycle day 3. Further follicular development is pursued under LH dominance, when FSH declines under the influence of rising levels of E2. In COS, the role of LH – and LH dominance – in the late follicular phase was typically ignored in the early development of COS. As soon as separation techniques and recombinant approaches allowed to develop pure FSH preparations, FSH-only approaches were recommended for COS. More recently, ultra-pure urinary gonadotropin preparations that foster FSH and LH effect properties have been proposed for COS. RCT's showed more favorable hormonal profile in COS conducted by hMG that combines FSH and LH effects, as compared to protocols using recombinant FSH (rFSH) only. Notably, hMG protocols were associated with lower progesterone levels in end-follicular phase stages, as compared to findings made in women receiving rFSH. Preparation providing FSH and LH effects are of different types. First, a preparation exists that combines rFSH and LH recombinant (reLH). This however suffers from the short half-life of reLH, which would warrant bi-quidiennal administration for the desired efficacy. Second, another group of preparations – human menopausal gonadotropines (hMG) – provides LH effects in addition to the FSH properties gained from hCG contained in the preparation. hMG's offer the advantage over rFSH/reLH preparations to provided sustained LH effects, as notably expressed by a more favorable end-follicular phase hormonal profile. A phase III randomized controlled trial (RCT) compared the new ultra-pure hMG preparation, Meriofert®, to an older preparation (Lockwood et al. RBM on line 2017). While Meriofert gains its LH activity from added hCG of chorionic origin, the older preparation has hCG of pituitary origin. The difference in half-life of hCG of pituitary and chorionic origin – longer in the latter case – was responsible for different efficacy of the two products. The hMG preparation Meriofert resulted in more oocyte despite similar hMG doses, defined by the study protocol. Moreover, Meriofert resulted in a higher oocyte utilization rate with a higher mature-to-total-oocyte rate. Ultimately, there was a trend toward higher cumulative pregnancy rate in the Meriofert group. In conclusion, recent data showed that hMG results in a more functional hormonal profile in the late phase of COS notably, with lower progesterone levels. The recent development of a hMG preparation gaining LH effect from hCG of chorionic origin offers added efficacy, as compared to preparations using hCG of pituitary origin.

FERTILITY SPARING MANAGEMENT IN YOUNG ENDOMETRIAL CANCER PATIENTS
Dominik Denschlag, Germany

Endometrial cancer (EC) in young women of reproductive age is a relatively rare diagnosis. However, since in the majority of these women delay their childbearing for a variety of reasons, more and more women in the near future will be nulliparous and have a diagnosis of EC at the same time. Hence, a more conservative approach of EC is desirable to preserve fertility of these women, without compromising their survival. Recently, the number of studies reporting encouraging results on fertility-sparing management of EC with high dose of progestins is increasing. It seems that preserving the uterus and the ovaries in a carefully selected patient with EC confers only a very small risk combined with an enormous benefit of fertility preservation. Therefore, it seems suitable for such a conservative approach, as well as method of treatment, follow-up, recurrence, survival rates as well as obstetric and oncologic outcomes, are very important parameters when consulting women with EC wishing to preserve their fertility. In this lecture, the current evidence regarding all the previously mentioned aspects will be reviewed and clinical recommendations, based on published data, about the most proper approach and consultation of these patients will be provided.

ROLE OF FETOSCOPIC ENDOTRACHEAL OCCLUSION (FETO) TO PREVENT PULMONARY HYPOPLASIA
J. Deprest1,2, L. Roussel1, L. Van der Veeken1, G. Attilakos2, P. De Coppi3, L. De Catte1, L. Lewi1, R. Devlieger4
1Fetal Medicine Unit, Dept. Obstetrics and Gynaecology, University Hospitals Leuven, Leuven, Belgium; 2 Institute for Woman’s Health, University College London, London, UK

Congenital diaphragmatic hernia (CDH) is one of the most common major birth defects and imposes a significant medical and socioeconomic burden. Despite significant advances in neonatal surgical care, the morbidity and mortality associated with this condition remain exceptionally high, and the poor outcomes have driven the development of in utero treatment strategies for this condition. The degree of pulmonary underdevelopment is the main cause of perinatal mortality. Fetuses with CDH presenting with liver herniation and a low lung area-to-head circumference (LHR) have a higher likelihood of neonatal death from pulmonary hypoplasia. Following encouraging results in animal models, fetal tracheal occlusion is performed now antenatally with the aim of triggering lung growth through the entrapment of lung fluid, and is performed with the minimally invasive technique of Fetoscopic Endoluminal Tracheal Occlusion (FETO) with a detachable balloon. Ultrasonography following FETO demonstrate improved lung echogenicity within 48 hours and an increased LHR within 2 weeks of surgery. The key to appropriate selection of fetal patients for FETO is to identify those at high risk of demise with conservative management and postnatal therapy alone. FETO with balloon removal before birth, as well as the EXIT strategy for fetuses born with the endotracheal balloon in situ, will be described here.

PREGNATAL SURGERY FOR SPINA BIFIDA APERTA: MOVING IT FROM BENCH TO BEDSIDE
J. Deprest1,2, L. Joyeux1, F. Van Calenbergh1, A. David1, P. De Coppi1,2, K. Janssen1, G. Naulaers1, L. De Catte1, L. Lewi1, R. Devlieger4
1In Utero Spina Bifida Surgery Team, University Hospitals Leuven, Leuven, Belgium; 2 Institute for Woman’s Health, University College London, London, UK

The prenatal diagnosis of neural tube defects (NTD) allows parents to consider all prenatal options. Though NTD can be diagnosed in the first trimester (1), the majority of cases of spina bifida are still being picked up in the second trimester. In a recent series of 167 patients we assessed patients referred to for suspected NTD at a median of 19 wks (2). Cranial lesions were diagnosed significantly earlier than spinal lesions. Of the open spinal lesions, 77% were isolated. Only 22% were managed expectantly, in line with high termination rates elsewhere in Europe. There was no correlation between parental prenatal management decisions and disease specific severity markers. Since 2012, we also offer open fetal surgery for selected cases of spina bifida aperta. We started our program after combined in house and exported training in collaboration with the Children’s Hospital of Philadelphia (3). By 2016 we operated over 20 cases, with an outcome comparable with the results obtained in the Management of Myelomeningocele Study (4). In that randomized trial (n=183), the number of children needing a ventriculo-peritoneal-shunt, who were operated in utero, was half what was observed the postnatal repair group (40% instead of 82% at 12 month). Also motor development at 30 months of age in prenatally operated children was better. The number of children that could independently walk doubled from 20 to 40% in the fetal surgery group. Drawbacks are the maternal morbidity.
but mainly a high risk for preterm rupture of the membranes and preterm delivery. In patients operated before birth, gestational age at delivery was 34±3.1 weeks compared to 37±3.1 weeks in the unoperated group. Further follow up of the MOMS cohort showed persistently lower shunt rates, yet more benefit in fetuses with normal pregnancy and elective cesarean delivery at around 37 weeks, and that outcomes will be provided to us. So far, we do not offer the method to all patients. We have a research program which is dedicated to the development of fetoscopic techniques that allows exact replication of the open procedure, or alternatives which have been shown to be equally effective (www.3dfetal.org). That project is a collaboration between UCLA and Leuven supported by the Wellcome Trust.

GNRH AGONISTS FOR FERTILITY PRESERVATION

Marie-Madeleine Dolmans

Université Catholique de Louvain, Institut de Recherche Expérimentale et Clinique (IREC), Gynecology Research Laboratory; Cliniques Universitaires Saint Luc, Gynecology Department, Brussels, Belgium

According to ASCO (1) and ASRM (2) recommendations, evidence supporting the effectiveness of gonadotropin-releasing hormone (GnRH) agonists for FP is currently insufficient, although it is recognized that these agents might yield other medical benefits, such as reduced vaginal bleeding when patients have low platelet counts in addition to a decrease in tumor volume as a result of chemotherapy. Reviews on the topic remain contentious, even if a randomized controlled trial (RCT) found that the ovaries are protected from depletion by administration of an GnRH agonist in young women receiving cyclophosphamide (3). As stressed by the authors themselves, the markers of ovarian reserve (like anti-Müllerian hormone [AMH] and antral follicle count [AFC]) were not evaluated. Moreover, the real benefits should not only be evaluated in terms of recovery of menses, but in terms of ongoing pregnancy and live birth rates. A very recent RCT, clearly demonstrated the absence of any benefit of GnRH agonists on future pregnancy rates (4). Until definitive proof of efficacy has been clearly established, other FP approaches should be offered alongside GnRH agonist therapy.


THE ARTIFICIAL OVARY

Marie-Madeleine Dolmans

Université Catholique de Louvain, Institut de Recherche Expérimentale et Clinique (IREC), Gynecology Research Laboratory; Cliniques Universitaires Saint Luc, Gynecology Department, Brussels, Belgium

A serious concern that must be addressed is the risk of reimplantation malignancy from the grafted tissue, especially in patients with leukemia (1), which is the most common hematological cancer in women under 20 years of age. The risk is particularly high in women with acute leukemia and cannot be completely avoided even if the biopsy destined for cryopreservation is taken from patients in complete remission (2). One alternative to avoid reimplantation malignant cells is to use mature oocytes by means of the so-called transplantable artificial ovary. Isolation of primordial follicles from cryopreserved ovarian tissue and their transfer onto a scaffold to create this artificial organ will serve to eliminate the risk of transmission of malignant cells (3,4). Recent developments in the isolation technique with GMP grade enzymes and involving washing the follicles three times (5), have proved successful, making this isolation technique with GMP grade enzymes and involving washing the follicles three times (5), have proved successful, making this


TIME LAPSE: WHAT HAVE WE LEARNED SO FAR? DO UNIVERSAL ALGORITHMS WORK?

Thomas Ebner

 Kepler University, Med Campus IV, Lina, Austria

Time-lapse imaging is an emerging technique aiming for a better assessment of embryo quality. The possibility that the time, duration and synchronization of events can be correlated to viability and pregnancy, thus, introducing potential new dynamic parameters of embryo development. Although an optimization of the annotation process a universal algorithm would be of great benefit. Luckily, the time-lapse annotation of dynamic and static morphologic parameters of embryo development are very consistent within and between observers which is crucial to the validity of embryo scoring and the existence of an algorithm. It has to be kept in mind that numerous potential confounders exist which alone or in combination might affect timing of cleavages. In other words, algorithms applied in one clinic may need slight adaption in another IVF unit.

PREMATURITY BIRTH

Vesna Ćić-Zlojutro

Cicic Clinic of Gynecology and Obstetrics, Republic of Sarska, Bosnia and Herzegovina

Introduction: According to the WHO definition, which may occur prior to childbirth 37 weeks pregnant birth (PB). Somewhere it as a lower limit which is mentioned each birth between 20 + 6/7 weeks, or 22 weeks, and therefore the major perinatal problem is the leading cause of neonatal morbidity and mortality. PB in 75-80% of cases the cause of perinatal mortality. Premature infants are given the diagnosis when classified into the following subgroups: (i) born before 28 W, ● moderate (born between 28 and 33 W), ● late (born between 34 and 36 W). If factors of PB causes are not known it is the so-called, idiopathic premature labor, which accounts for around 50% of all premature births. Intrauterine infections are, according to the studies in which the assessed cultures of amniotic fluid, associated with a 25-40% PB. 1) a premature contraction without the rupture of the membranes (40% to 50% of cases), 2) a premature rupture of the membranes prior to the beginning of the contraction (20% to 30% of cases), 3) optionally a preterm delivery as well as medical procedures because of the indication for the birth (20% to 30% of cases). Diagnosis: 1) Good Medical history, dating of pregnancy, 2) Clinical examination, 3) Ultrasound and measurement of cervical length, 4) Laboratory analysis: CBC, CRP, swabs, urine culture, (Probenecid, interleukins, 5) Monitoring at houses-authors of the Cochrane review found 15 randomized trials (which were included 6000+ women), and 13 of them contained data that were could be used for further analysis. Therapy: 1) Bed rest, 2) Progesterone (oral, vaginal, intramuscularly) - plays a significant role in establishing an adequate immune environment during pregnancy because it affects lymphocytes that pregnant women are released protein called PIBF (Progesterone Induced blocking factor), which mediate the immunomodulatory activity of the progesterone and anti-abortivm. Peripherally lymphocytes applicable to lung malignant cells were observed after autografting primordial follicles inside a fibrin scaffold in a mouse model (7) and after xenografting human primordial follicles inside a fibrin scaffold. Evaluation of a human ovarian follicle isolation technique to obtain viable malignant cells. Blood. 2012;120(22):4311-6. From patients with leukemia in complete remission contains no apparent

with preserved broke resulted in no improvement of neonatal outcomes, and could present a role in the prevention of infections of the mother and the newborn. The routine application of antibiotics in the case of premature rupture of fetal membranes is therefore to be considered, but in the selection of antibiotics should be avoided amoxicillin with clavulanic acid, for its application may lead to increased risk of developing necrotizing enterocolitis in the neonate. 7) Cervix - in one meta-analysis shows that the cervix, preoperative and postoperative cervical pregnancy have a similar effect in women with singleton pregnancies and previous spontaneous preterm birth and the part of the cervix. 8) Other medications – DHA, selenium, vitamin D, folate - Ambroxol - 14 in smaller studies was compared frequency preterm labor in the group of women using Ambroxol with those used corticosteroid and placebo groups. Further research is needed to be said about the effectiveness of such treatment. 9) Oxygenation. 10) The treatment of oral infections.

**Material and Methods:** We analyzed data from the maternity clinic in Banjaluka in 1.1.2012. to 31.12.2016 years. The obtained results are compared in relation to the age of gestation, number of deliveries, as well as the delivery mode. **Results:**

<table>
<thead>
<tr>
<th>Year</th>
<th>n PB</th>
<th>N delivery</th>
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<tbody>
<tr>
<td>2012</td>
<td>220</td>
<td>3176</td>
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<td>Total</td>
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The frequency early preterm delivery to 31.6 weeks of gestation was 2012/1,22%, 2013/1,19% 2014/1,03% 2015/1,78 % 2016/1,88%.

**Material and Methods:**

- **Ye ars:** n PB
- **N delivery:** %
- **To all delivery / preterm birth 2012-2016 years**

**Table b.1 To all delivery / preterm birth 2012-2016 years**

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**Table b.1 To all delivery / preterm birth 2012-2016 years**

**ASHERM AN SYNDROME**

Mark Hans Emanuel
Dept. Gynaecology and Reproductive Health, University Medical Center Utrecht, Netherlands, Dept. Gynaecology and Obstetrics, Spaarne Gaasthuis Hoofddorp, Netherlands, Dept. Gynaecology, University Hospital Ghent, Belgium

**Objective:** To study the success of centralized hysteroscopic adhesiolysis with Asherman Syndrome (AS). DESIGN: Prospective cohort. SETTING: 2 University-affiliated hospitals.

**PATIENT(S):** A total of 638 women with AS were included, all diagnosed using hysteroscopy, and operated on between 2003 and 2013.

In all patients a pregnancy related procedure preceded.

**INTERVENTION(S):** Hysteroscopic adhesiolysis and second look hysteroscopy two months later.

**Main outcome measure(s):**

- Hysteroscopic adhesiolysis (was classified as successful if a normalization of menstrual blood flow occurred, along with a restored cavity anatomy, free of adhesions, with hysteroscopic visualization of ≥1 tubal ostium. Recurrences of adhesions were diagnosed during hysteroscopy after an initial successful procedure. Result(s): The procedure was successful in 606 (95.0%) women: 60.4% in 1, 12.4% in 2 and 2.2% in 3 procedures. In 7 (0.1%) patients we were not able to restore the uterine cavity and 25 (3.9%) patients stopped their treatment voluntary. IUsA spontaneously recurred in 174 (27.3%) patients after treatment. High grades of adhesions were predictive of a higher chance of spontaneous recurrence of adhesions. All 638 women were approached to follow up on their fertility and live births. In 460 patients follow up was closed of which 425 had procreative desires. In these 425 women 490 pregnancies occurred (31.0% miscarriages, 0.8%ectopics, 0.4% immature deliveries and 67.8% live births). In 36.5% of the patients a postpartum complication occurred. Earlier miscarriages and treatment for spontaneous recurrent adhesions were in a multivariate analysis not related to the chance to conceive. Pregnancy rate, however, was positively related to age, the cause of adhesions, the grade of adhesions and the results of the adhesiolysis. Conclusion(s): In this large cohort (the largest ever described) hysteroscopic adhesiolysis can be very successful with a restored uterine cavity in at least 95% of women with AS. These women have a normal chance to deliver a living child, however, with an increased risk for postpartum complications.

**ENDOMETRIAL SCRATCHING**

Mark Hans Emanuel
Dept. Gynaecology and Reproductive Health, University Medical Center Utrecht, Netherlands, Dept. Gynaecology, University Hospital Ghent, Belgium

Success rates of assisted reproductive techniques (ART) are approximately 30%, with the most important limiting factor being embryo implantation. Mechanical endometrial injury, also called ‘scratching’, has been proposed to positively affect the chance of implantation based on unknown biological effects, but the currently available evidence is not yet conclusive. In a recent Cochrane analysis nine randomised controlled trials met the inclusion criteria for review, and a total of 1512 women were included. The women in seven studies were trying to get pregnant from and progesterone vaginal pessary and have a similar effect in women with AS. Nearly 60% of women will develop leiomyomas during their reproductive years, and they can suffer a wide range of clinical manifestations: heavy menstrual bleeding, pelvic masses, pain or infertility. Since not so many years ago, surgery has been the first-line therapy for women with symptomatic uterine fibroids, and the available options were limited to perform a hysteroscopy or a myomectomy, which group of women will benefit from the procedure. Furthermore, the endometrial injury procedure is known to cause a degree of temporary pain or discomfort. Only one study reported on one pharmaceutical studies, that the women experienced pain during the procedure, and the average pain experienced was six out of 10 on a visual scale from zero to 10. Endometrial injury does not seem to have a detrimental effect on spontaneous pregnancy, ectopic pregnancy or multiple pregnancy. No studies reported bleeding after the procedure. Overall until now it seems unlogical or even unethical to perform endometrial scratching as a routine procedure and it seems only justified in further investigational studies that are needed.

A multicenter randomized controlled trial in Dutch academic and non-academic hospitals started in January 2016 (SCRaTCH trial NTR5342). A total of 900 women will be included of whom will undergo an endometrial scratch in the luteal phase of the cycle prior to controlled ovarian hyperstimulation using an endometrial biopsy catheter. Until now more than 500 patients are recruited. The primary aim of this study is to determine the effect of endometrial scratching prior to a second fresh in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI) cycle on live birth rates in women with a failed first IVF/ICSI cycle. The primary endpoint is the live birth rate after the 2nd fresh IVF/ICSI cycle. Secondary endpoints are cumulative live birth rate (after the 1st and 2nd IVF/ICSI cycle and over 12 months of follow-up); clinical and ongoing pregnancy rate; multiple pregnancy rate; miscarriage rate and endometrial tissue parameters associated with implantation failure.

**UTERINE FIBROIDS: MEDICAL TREATMENT FOR ALL**

Jodėp Estadella Terriel, Spain

Uterine fibroids are the most common benign gynecological tumors. Nearly 60% of women will develop leiomyomas during their reproductive years, and they can suffer a wide range of clinical manifestations: heavy menstrual bleeding, pelvic masses, pain or infertility. Since not so many years ago, surgery has been the first-line therapy for women with symptomatic uterine fibroids, and the available options were limited to perform a hysteroscopy or a myomectomy, depending on the desire for future pregnancies. This approach represents an elevated health care cost and it also adds the costs inherent to the patient’s recovery time. The pharmacological treatment has always been a second-line therapy. GnRH agonists have been used to shrink fibroids and restore hemoglobin levels in symptomatic women, but because of their side effects, they cannot be used for long periods of time. With the development of Selective Progesterone Receptor Modulators (SPRMs) the management of uterine fibroids has changed drastically. There is evidence from preclinical and clinical trials, as well as from histological and pharmacological studies, that progesterone and its receptors play a key role in uterine fibroid growth. SPRMs are synthetic compounds that exert either an agonistic or antagonistic effect on PRs. Among SPRMs, Ulipristal Acetate (UPA) has proven to be effective and safe for the treatment of this disease. Clinical phase III trials PEARL I (UPA vs placebo) & PEARL II (UPA vs Leuprolide Acetate) revealed an effective and quick control of the bleeding symptoms on those patients treated with the UPA, with no differences from the group that received GnRH analog Leuprolide Acetate. PEARL III (with its 2 extensions) and PEARL IV study demonstrated the safety and efficacy of the long term repeated intermittent treatment with UPA. With data, up to eight 3-month courses of UPA, these studies demonstrated that this repeated treatment effectively control bleeding and pain, and reduced fibroid
While we feel that we are aware of the risk of the old ones. However, a relatively recent study of 2009 by Crider KS et al found an increased risk of teratogenicity in pregnancies and in 1.7% they were misused (Amman U et al 2006). Significant differences in outcomes between the therapy groups and antibiotics therapy that stemmed from the second ORACLE study done result in an increased infectious morbidity.

Congenital heart diseases in 2008. The new guidelines eliminated the changed its guidelines for use of antibiotics in labour in women with guidelines is that of the antibiotics prophylaxis of women with bacteria. The deaths from resistant bacteria are in the range of 20,000 bacteria may have a major recollection bias.

Group A are drugs with no risk (no drug belongs to that group) Group B are relatively safe for the fetus, C – Risk unknown and D with prominent risk. X are drugs that should never be used. A recent German study showed that antibiotics were used in 20% of pregnancies and in 1.7% they were misused (Amman U et al 2006).

Risk of teratogenicity – The common concern is for new antibiotics; While we feel that we are aware of the risk of the old ones. However, a relatively recent study of 2009 by Crider KS et al found an increased risk of teratogenicity of Sufa and Nitrofurantoin; two common drugs that are used for chemoprophylaxis of bacterium and UTI’s. The risk for anomalies associated with these drugs were increased x2-3. However, these results would be viewed with caution as this study may have a major recollection bias. Risk of creating resistant bacteria – The use of antibiotics leads to a selection of more resistant bacteria. The deaths from resistant bacteria are in the range of 20,000 per year. A use for the wrong indication such as a clinical disease caused by a virus and chemoprophylaxis that would aid only few the increased rates of long term morbidity are not clear. The two leading theories are: 1. Passage of the baby through the birth canal exposes the baby to the vaginal flora and acquiring some of this flora reduces the risks. 2. Antibiotics (that is almost invariably administrated in CS. The microbiome: There has been awareness to this concept for more than 10 years. It started with GI diseases and conditions but now it is relevant to all fields of medicine including obstetrics. Furthermore, we now know that are different microorganisms and the bacteria in the gut are different than those of the vagina and the orophanynx. This created interested and new understanding of the potential of the gut and the gut microbiome in pregnancy and using antibiotics in pregnancy. While therapy of an infection is likely to be helpful the use of prophylactic antibiotics may be harmful not only to the babies and mothers that were at risk but would have not developed any infection but at times to those who had an inflammatory process. Long term outcome of CS: There is a link between birth by a CS to a variety of long term poor outcomes. These include: • Type 1 diabetes, • Obesity, • Asthma, • Atopic dermatitis, •Cancer (Acute Lymphatic Leukemia). The mechanism for these increased rates of long term morbidity are not clear. The two leading theories are: 1. Passage of the baby through the birth canal exposes the baby to the vaginal flora and acquiring some of this flora

Findings up to 1950 – Only 17 cases

• 1957 – Entity recognized and labelled

What do we think we know about AFE?

• Caused by Amniotic fluid reaching the lungs

• Can be diagnosed by tests for AFV, mast cells etc.

• Has specific clinical presentation of pulmonary dysfunction and bleeding

• Mortality – 90%

• AFE – Risk factors:
  • Multiparity
  • Abortion
  • IUF
  • Post dates
  • Tumultuous labour
  • Hyperstimulation
  • Removal of placenta
  • CS
  • In US registry 41% had hx of allergies
  • Non-Hispanic blacks x2.5

Incidence of AFE:

<table>
<thead>
<tr>
<th>Author</th>
<th>Year published</th>
<th>Incidence (per100000 maternities)</th>
<th>Case fatality rate (%)</th>
</tr>
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<tbody>
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<td>2012</td>
<td>1.9-6.1</td>
<td>11-43</td>
</tr>
<tr>
<td>Knight</td>
<td>2010</td>
<td>2.0</td>
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<tr>
<td>Ahsan</td>
<td>2008</td>
<td>7.7</td>
<td>21.6</td>
</tr>
<tr>
<td>Tuffnell</td>
<td>2005</td>
<td>Not reported</td>
<td>29.5</td>
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<tr>
<td>Gillett</td>
<td>1999</td>
<td>4.8</td>
<td>26.4</td>
</tr>
<tr>
<td>Hill</td>
<td>1996</td>
<td>Not reported</td>
<td>61</td>
</tr>
<tr>
<td>Burrows</td>
<td>1995</td>
<td>3.4</td>
<td>22</td>
</tr>
<tr>
<td>Morgan</td>
<td>1979</td>
<td>Not reported</td>
<td>86</td>
</tr>
</tbody>
</table>
What are implications of variability in incidence and mortality?

1. **Incidence:**
   - Affected by diagnostic criteria (e.g., lung cytology implies death or Swan Gantz)
   - Range decreased from 80-90% to about 20% mainly by ICU improved care

2. **Incidence:**
   - May imply different populations, risks care etc.
   - Based on diagnostic criteria or lack of

**Diagnosis of AFE:**

- Anoxic fluid in lungs
- Not seen in 27% of deaths from AFE
- Only in 25% of clinically diagnosed (Hanksins 2002)
- Present in 5% of healthy patients
- ATBV by itself is benign. Contamination with meconium/debris

**Post-mortem findings of hair or squames in lung**

**Methods:**

- Clinical presentation (acute hypotension or arrest, acute hypoxemia or coagulopathy) with other explanation
- Post-mortem findings of hair or squames in lung
- Clinical onset in labor or within 30 min from placental delivery
- No fever (>38°C) in labor

**Diagnosis by AFV:**

- **Criteria:**
  - Hypoxemia
  - Hypotension
  - Metabolic acidosis
  - Pulmonary thromboembolism

**Management:**

- More judicious use of blood components
- Attention to warm blood products (to increase the effectiveness of the clotting factor)
- The goal of therapy is not to restore the blood pressure but to keep it on the lower-normal side
- Keep the pH at non-acidotic level

**Postpartum Management (PPH): FIGO Advices**

**FIGO – International Federation of Gynecology and Obstetrics**

**Draft by:** Dan Farine

University of Toronto, Canada

This draft of a FIGO document is dedicated to our friend Louis Keith (1935-2014) who had many achievements including being an editor of the only textbook on PPH.

**Objective:**

To create FIGO advices on different aspects of PPH. These include: planning for PPH prevention at different levels, deciding on resources to be allocated to the prevention of PPH, prevention of PPH in individual parturients, management of PPH.

**Methods:**

- Systematic review of the evidence on PPH including reviews and peer-reviewed papers, Cochrane Reviews, textbooks on PPH and bleeding, government publications, and statements from other Societies

**Key Words:** Hemorrhage – post-partum, pregnancy, pregnancy complications, shock, blood products.

**Introduction:** Post-partum Hemorrhage (PPH) is one of the worst obstetrical complications. It is a major contributor to maternal death. The number of women dying in the developing world is very high and estimated at 200,000/year. In the developed world, it is also one on the major contributor to mortality and its frequency seems to be on the rise. The consequences of PPH could include:

- The literature on PPH is very extensive. There are several recent textbooks on obstetrical bleeding and one dedicated solely to PPH with a recent edition last year. The number of papers on this topic in Medline exceeds 5,000. There are more than 50 national and international guidelines and few hundred reviews. The purpose of these guidelines is not to publish another review on the topic but to provide a document that will facilitate the development of protocols in hospitals, regions and even countries. There are more than 50 guidelines on PPH published by different national societies the WHD and two by FIGO. The purpose of this document is to look at all the aspects of PPH address issues that are often neglected in planning the resources and strategies of improving outcome and provide the best evidence from recent literature for patient management.

- Methods: A systematic review of the evidence on PPH published, including randomized control trials, review and peer-reviewed papers, Cochrane reviews, government publications, and statements from other societies are used to develop the statements/recommendations.

**ADVANCED PLANNING:**

Creating the optimal set-up for improving outcome of PPH:

1. **Specific protocols** (Creating unit/city/province) – having such protocols allows for selection of the right devices and training and optimizing the resources. Such protocols will force the consideration of the issues outlined below. Specific issues resulting from such protocols:
   - Part of such a protocol should be a PPH cart that could be brought to the room of women at risk or when PPH occurs unexpectedly (usually defined as 500cc or 1000cc for severe PPH).
   - Blood collection sheets – These should be used in bleeding patients to provide proper.

2. **Blood services** – The main reason for death in PPH is not coping with the blood loss. Countries/regions/hospital/units should attempt to have an adequate blood supply for emergencies such as PPH. Even in developed countries with proper blood bank there may be an issue of supply in acute cases. Each hospital should have a code and a protocol for massive bleeding. When this code is called several different steps occur in parallel. These include:
   - Diverting human resources to this specific patient(s) – for example at night time routine blood typing is delayed and another technician may be called from home.
   - A commitment to provide that many units of packed cells and other blood components within a defined short time to the team dealing with the bleeding patients.
   - The ability to do rapid testing of the relevant tests (CBC, cross and type, coagulation etc.). This allows therapy, especially of blood components to be directed based on laboratory results rather than clinical impression alone.

3. **Blood administration protocols:** These protocols should not be necessarily obstetrical and probably should be hospital based ones. Our approach to the use of blood and its components has been unchanged for long time. Since the Iraq and Afghanistan wars, there has been a change in the management of shock secondary to hemorrhage. The new protocols were not designed for obstetrical bleeding but are probably superior to the old. A full description of these new protocols is out of the scope of this document. However, some of the key issues are:

   1. More judicious use of blood components
   2. Attention to warm blood products (to increase the effectiveness of the clotting factor)
   3. The goal of therapy is not to restore the blood pressure but to keep it on the lower-normal side
   4. Keep the pH at non-acidotic level

These new guidelines have several practical implications such as having blood warmers on the labour floor and checking the pH. In addition, there need to be some directives as to when use unmatched O (-) blood.

4. **Training and PPH drills:** There is now some evidence that PPH drills allow for a more efficient management of this complication and improved out. There are now several different bodies that provide this service in isolation or as part of a total obstetrical package. There is no evidence that any of these is superior to the others. It is also possible to develop one own manual of training to avoid the costs of
the established ones. There are now some superb programs using mannequins but this is too expensive for most units. We recommend that such drills should be part of an ongoing program and not a one-time event. Although there is no good data on the optimal frequency of these drills they should be done yearly or more frequently (mainly because of turnover of providers). Three of the seven elements that are important to the success of such a program: a) All obstetrical care givers have to be included and all should attend the same sessions. b) Learning, making them feel safe and well. c) A call for help is generally a must. The decision on who to call should be based on clinical need and availability. It is important to plan few steps ahead and have key relevant specialists on standby. This is a great addition to CS prevention and therapy but it comes at a price that many countries, regions and hospitals cannot afford.

6. Precautions: This is an excellent adjunct to the management of PPH. It could be used prophylactically in patients who are expected to have a PPH (e.g. placenta accreta) or to supplement other treatment modalities and often to eliminate the need for surgery in a number of cases. In general, however, this is a service that addresses many other issues unrelated to obstetrics and gynecology. Therefore, the decision of establishing it is outside the scope of an obstetrical team. Its use and limitations should be studied by such a team. The major one is the time required to have a team on site. A long lag period may render this solution impractical. It also may result in a need to call such a team earlier when other therapies are still attempted.

7. Cell sorter – In a patient with a massive bleeding an immediate source of matched blood is the blood exanguinated. A major risk is of an infection introduced directly into the circulation. Another that is often forgotten is the risk of iatrogenic amniotic fluid embolism. A way to overcome both is autologous blood. This is a cell sorter. It is often used by large oncology units and it could be borrowed for obstetrical emergencies. However, a mechanism of doing that need to be discussed by the relevant services and a mechanism for doing it (especially at night time when it is practically never used) needs to be established. Purchasing a cell sorter for obstetrical uses is expensive and not practical for most units.

8. Invasive placenta accreta protocol – The frequency of placenta accreta in the developed world is increasing exponentially. And it is a major contributor for the increased frequency of severe PPH and mortality. A protocol for management of placenta accreta may improve outcome as it could be diagnosed before labour turning a catastrophic obstetrical case into a manageable one. A full discussion of these problems is outside the scope of this chapter but the following elements should be considered: a) Patients with previous Cesarean deliveries (CS) are at increased risk especially if they had few of these. b) A combination of previous CS and an anterior placenta mandates a careful attention during any ultrasound scan and more so in the anatomy scan or early anatomy scan. Any suspicious finding for placenta accreta should be followed by a targeted ultrasound in expert hands and not by MRI. None of the current guidelines mandate ruling in or out of accreta. However, some of the current guidelines do suggest looking for this pathology (UK and Australia NZ), c) Tertiary or large centers should consider the creation of an accreta team and clinic involving relevant experts (ultrasound, MRI, invasive radiology, urology, expert pelvic surgeons etc.) to plan electively and collectively the management of patient (in centers). d) Elective CS to close to term with the proper team (pelvic surgeon(s), dedicated anaesthetist, invasive radiology, several blood units and urology if needed). e) Post-partum care – many of these patients need to be intubated and may complications such as ARDS, DIC and Sheehan Syndrome to consider. Considerations and criteria for ICU need to be developed preferably with collaboration of the intensivists, anaesthesia and other relevant services. Similarly, consideration for transfer to a tertiary care need to be developed in primary centers.

10. Ruptured uterus and inverted uterus – a large portion of the PPH protocol should be used with these specificities. However, a full discussion of these issues is out of the scope of this document.

PREVENTION OF PPH: It is obviously preferable to prevent PPH or be able to anticipate of risk factors instead of treating it as an acute and major complication or catastrophe. Prevention could be exercised in the ante-partum period and/or in the intrapartum period.

Antepartum:

1. Review risk factors for obstetrical bleeding and bleeding disorders.
2. Look for adherent placenta in women with previous CS and anterior placenta.
3. Close to term look for obstetrical risk factors for bleeding that include: large uterus (multiple pregnancy, polyhydramnios), women who will require long induced labor.
4. Look for patients with low hemoglobin and try to correct the anemia ante-partum.

Intrapartum:

Active management of the third stage of labour is the best way to avoid PPH and has been described about 50 years ago. It includes 3 elements: cutting the umbilical cord The Cochrane library has several reviews that look at the active management of the third stage looking at the following outcomes: average blood loss, blood loss>500cc, Blood loss >1,000 cc and low Hemoglobin at 1-2 days post-partum. In all of these parameters there was a benefit with active management. Its success rate is about 60% in all these parameters. There are probably two possible variations to the active management regarding cord clamping and which oxytocic to use.

1. Cord clamping – Delayed cord clamping was introduced initially with preterm babies but was shown to have benefits as well. A meta-analysis of recent papers showed that there are advantages to the baby in terms of the Erythrome and minimal risk for PPH. However, in cases where the accoucheur can see active bleeding (either in vaginal path (vaginal) or external, he has to act and clamping the cord). The cord clamping can be done later. The choice of oxytocic – Practically every oxytocic that is used for the therapy of PPH was tried for prevention as well. Few require some discussion:

a. Oxytocin – This is the most commonly used oxytocic in obstetrics and all the classical studies were performed with this drug. Recent data documented that a rapid administration of oxytocin can cause hypotension that may further compound the effects of PPH. Therefore, it is recommended that it is given slowly
b. Carbetocin – This is a modified oxytocin molecule. The effect of the change in the molecule leads to resistance to degradation and a longer and more sustained activity. Almost all studies and all meta-analyses showed that it is superior to other oxytocics (oxytocine, ergonovine, methergine, misoprostol, prostaglandins etc.). None of these studies showed that any of the other drugs is superior to Carbetocin and generally the side effects are more frequent and significant with the other drugs. The Canadian (SOGC) guidelines call for the use of Carbetocin in elective CS and in vaginal delivery with risk factor for PPH.

2. Misoprostol – This is the only drug that could be used in setting where refrigeration and IV infusion are not available (which is a large portion of the developing world). It could be given orally or vaginally but when factoring the costs of PPH (mainly care givers time) the costs may be similar or lower. In the developing world oxytocin may provide the best solution. Misoprostol is currently the only agent that could be used in rural under developed areas.

Management of PPH: There is no simple universal scheme of managing PPH as the resources and the expertise may vary between different countries, regions and centers. However, several themes should be universal.

Basic concepts:

1. Eclampsy – Although a large portion of PPHs are due to uterine atony other primary etiologies such as tears and retained placenta should be considered. These could be at time present along with atony. Other less common etiologies such as meconium aspiration, DIC should be considered (e.g. accreta).
2. Blood loss Vs. Hemodynamic status – Both need to be monitored. Blood loss is often underestimated by care givers. The use of collecting sheet for blood loss is useful in the bleeding patient. If available automated machines for blood pressure and pulse should be used in the bleeding patient.
3. Help and planning – A call for help is generally a must. The decision on who to call later. There need is on clinical need and availability. It is important to plan few steps ahead and have key relevant specialists (pelvic surgeon, invasive radiology, hematology) called earlier than
4. Buying time – In parallel to establishing a diagnosis and assessing blood loss an attempt should be made to slow or stop the bleeding temporarily. Compression of the uterus (both in vaginal delivery and CS) may stop or slow down. In CS, these are several other options
that include: lifting the uterus, twisting the uterus and compressing the area.

5. Aggressive management – These should always include:
- Two large bore IVs
- Foley catheter insertion after a short period of therapy
- Continuous vital signs (temperature q15 min)
- Laboratory work including cross and typing, coagulation profile, pH and electrolyte, LFT and RFT.
- A dedicated person to chart the management.
- One person should be in charge of the management and its coordination.

6. There should be allocation of personal to take care of the baby and communicate with the partner and the family.

Therapy options: There are several different options for controlling and stopping the bleeding. In general one should try medical therapy first, compression technique next and surgical and/or invasive radiology last. Obviously, these could be used either sequentially or in parallel. There are too many permutations of these especially considering the variability in setting, resources and available techniques.

I. Medical therapy (most are off license or label):
1. Oxytocin – A continuous IV drip of concentrations of up to 40U/l. A single dose could be administered slowly or IM (Note that this is different from the 10U recommended by the FIGO guidelines of 2003)
2. Misoprostol – May be added to oxytocin or used alone in low resource setting or home births. Note that the FIGO guidelines recommended sublingual dose while now there is good evidence to use the rectal route
3. Prostaglandin F2 alpha – Best injected to the uterus. May aggravate asthma and mimic amniotic fluid embolism
4. Methylergonovine - (Prostin E2) suppository. Contraindicated in hypotension. Needs to be thawed
5. Methylergonovine - Should not be used in hypertensive patients
6. Methergin - A combination of oxytocin and ergonovine. Should not be used in hypertensive patients
7. Tranexamic acid – anti-fibrinolytic with mixed results
8. Factor VII - it is very expensive (few thousands $); requires fibrinogen to act; requires consultation with hematologists
9. Nano particles (not in used in humans yet)

II. Compression techniques:
1. Bakri or similar balloons may exert pressure on the endometrium and along agents that contract the uterus may stop the bleeding
2. Foley catheter and a surgical glove – The "Cheap version" of the balloons. There is anecdotal evidence it works better than the balloons (as it may accommodate a larger volume and may adjust better to the contours of the uterus)
3. Packing of the uterus – The technique is to tie two large abdominal packs and pour Acrofibrin or similar oily solution and pack the uterus very tight. The packing should be removed about 24 hours later. This simple technique has very good results. It was almost abandoned 40 years ago because of concerns of blood accumulating behind the packing. This can be ruled out with scans and this approach which is especially suitable for low resource areas is re-emerging.

III. Surgical approaches:
These require a laparotomy in a bleeding patient who may not be stable. If the patient has already a CS this concern is not an issue. The possible surgical techniques:
1. Ligating the internal iliac artery – This require knowledge of the retroperitoneal area. One has to check before tying that it was not the external iliac that is compressed
2. Deep stitches in the placental bed – May achieve hemostasis fast especially in mild forms of accreta
3. Ligation of the uterine arteries – A single large stitch to the each of lateral aspect of the uterus after it was lifted to protect the ureters.
4. Variations to the B-Lynch suture
5. Hysterectomy – In cases of accreta the alternative is to leave the placenta in situ.
6. The ovarian artery – the descending branch may have to be tied at times along with the uterine surgery

IV. Invasive radiology:
It could be used prophylactically when there is a pathology that may result in major bleeding (e.g. accreta). In cases of unexpected PPH, as often is the case, the obstetrical team has to be cognisant of the time limitation issue. It takes about 30 minutes to set for the procedure and the time for the team members to arrive to the hospital should be added if not at working hours.
There different degrees of embolization, super selective, selective and non-selective but the techniques and their selection should be left to the discretion of the radiology team.

V. Blood component management – The new protocols should be considered but specific recommendation is out of the scope of this document.

VI. Pneumatic trousers – Could be useful in the hypovolemic patient. Its use has been covered by previous FIGO guidelines

VII. Cell sorters – may be very helpful but as most units will not have this a discussion is out of the scope of the document.

Recommendations/ Advices
The International Federation of Gynecology and Obstetrics (FIGO) recommends that:
1. Planning for the prevention and management of PPH should be done on all level starting with the national ones and ending with any medical facility proving intra-partum care
2. Planning is needed in a variety of different areas. The infrastructure and how to integrate different disciplines (radiology for embolization, hematology for clinical protocols and cell sorters and blood bank for availability of blood products). Decisions on high cost and low cost options have to be made; Proper ongoing education has to be planned and provided; specific protocols for prevention and management of PPH have to be developed.
3. This set of FIGO recommendations/advices should be used as a template to address all these different issues outlined above. Specific guidelines and protocols need to be developed based on this template, available resources and national guidelines

Current guidelines for prevention and management of PPH:

Management and postpartum PPH: Royal College of Obstetricians and Gynaecologists Green-top Guideline No. 52 May 2009 Minor revisions November 2009 and April 2011


Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage #235 - Published October 2009

International Federation of Gynaecology and Obstetrics (FIGO) guidelines: Prevention and treatment of postpartum haemorrhage


www.guideline.gov/content.aspx?id=10922

Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage

Primary postpartum haemorrhage clinical practice guidelines.

Management of primary postpartum haemorrhage

Prevention and management of primary postpartum haemorrhage

Primary postpartum haemorrhage clinical practice guidelines.


Non-invasive preimplantation genetic screening (NIPTPS) on 24 CHROMOSOMES USING BLASTOCYST CULTURE MEDIA

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The aim of this pilot-study was to assess if array CGH (aCGH), non-invasive preimplantation genetic screening (NIPTPS) on blastocyst culture media is feasible. Therefore, aCGH analysis was performed
on twenty-two spent blastocyst culture media samples after polar body 
preimplantation genetic screen (PGS) for assessment of advanced maternal 
age. All oocytes were fertilized by ICSI and all embryos 
underwent assisted hatching. Concordance of polar body analysis and 
cultured results was as follows. Thirty-three out of 158 samples (21.2%) 
revealed general concordance of ploidy status 
 euploid/aneuploid. At least one chromosomal aberration was found 
concordant in 10 out of 15 embryos analysed aneuploid by both polar 
body and culture media analysis. Overall 17 out of 35 (48.6%) single 
chromosomal aneuploidies were concordant between the culture 
media and polar body analysis. By analysing negative controls 
(healthy non-aneuploid embryos) after blastocyst formation, the de novo 
was observed. Therefore, NIPS could serve as a second matrix after 
polar body or cleavage stage PGS, however in euploid results 
maternal contamination needs to be considered and results 
interpreted with caution.

**ROLE OF MITOCHONDRIA IN IVF SUCCESS**

**BOOSTING MITOCHONDRIAL FUNCTION IN OOCYTES INCREASES SUCCESS: NO PROOF HAS YET BEEN PROVIDED**

Simon Fishel, UK

Mitochondria are membrane-bound organelles that contain their own DNA (mtDNA) and are essential for various cellular functions; these 
include initiation of steroidogenesis, providing Ca2+ storage and 
regulation, the production of energy, and facilitating multilayered cellular 
activities including apoptosis and cell survival. Amongst other 
functions, the mtDNA codes for ~16% of the polypeptides involved in the 
electron transfer chain generating the majority of cellular ATP

Acidosis. Depleted copies or dysfunctional mitochondria in oocytes, 
more prevalent in older women seeking ART. During the last two 
decades, several researchers have attempted to 'rescue' such oocytes by the addition of heterologous mitochondria, although the attendant risks were considerable. More recently, putative autologous mitochondria have been used as a prospect to avoid the severe risk to the health of ensuing offspring whilst boosting embryonic viability. Various strategies have been developed for such clinical therapy such as simple injection either of healthy, donor mitochondria into the ooplasm, or autologous mitochondria - which is utilized in the recently 
pronulated Augment® programme, to the more technologically 
challenging spindle or pronuclear transfer from an affected oocyte into 
donor oocytes with normal mitochondria. Two overarching reason for mitochondrial transfer are apparent: critically, to find solutions to 
problems related to diminished mitochondrial function or mtDNA gene expression. The presentation will review the current evidence for enhancing mitochondrial copy number, or modification of its function on clinical 
outcome, and the evident risks to offspring in some of these strategies.

**MITOCHONDRIAL DNA (mtDNA) CAN SERVE AS A BIOMARKER OF PRE-IMPLANTATION EMBRYO VIABILITY**

Elpida Fragouli

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**Problem Statement:** It is widely known that the transfer of 
morphologically good euploid embryos does not necessarily lead to an 
ongoing pregnancy. mtDNA quantification has recently been proposed as a new biomarker of embryonic viability. Specifically, a 
relationship was observed between mtDNA copy number and 
embryonic implantation potential. Data indicated that euploid embryos with mtDNA above a certain threshold were incapable of implantation. This investigation had two aims: a retrospective analysis of the overall value of an established mtDNA threshold in previously completed clinical cases, and the first application of mtDNA quantification in a prospective blind non-selection setting. **Methods:** Euploid blastocysts had their mtDNA quantities examined in a biopsied trophoderm (TE) sample with the use of quantitative real-time PCR. Multiple targets on the mitochondrial genome were assessed, and results were compared with the use of a multiplex nuclear sequence (ALU), to avoid risk of inaccuracies in the obtained data due to allele 
dropout. The first part of the study involved a blinded retrospective analysis of spent blastocysts, whereas the second part was a blinded 
non-selection study, during which 199 embryos were assessed. A total of 35 IVF clinics participated in these investigations. **Results:** Data from the blinded retrospective analysis demonstrated that 9.2% of all blastocysts (with mtDNA levels above previously established thresholds and were therefore predicted to have reduced implantation potential. Clinical outcomes were known for 282 transferred blastocysts, leading to an implantation rate of 65.6%. Normal range 

mitochondrial copy number, or modification of its function on clinical 
outcome, and the evident risks to offspring in some of these strategies.

**CONCLUSION:**

Data obtained from the retrospective and the non-
selection investigations suggest that mtDNA quantification may have some usefulness as a viability biomarker. It should be noted, however, that the incidence of blastocysts with unusually elevated mtDNA levels is very low (5-10%, depending on the referring clinic). Further functional studies are required to understand the biological cause(s) of elevated mtDNA levels and an enhanced understanding of how they relate to diminished implantation potential would be invaluable.
The degree of association between HRT and breast cancer is controversial. Different progestins have been shown to differ significantly in their effect on breast tissue. However, the WHI study, which compared conjugated estrogens (CE) and medroxyprogesterone acetate (MPA) in postmenopausal women (PMW) suffering from genitourinary symptoms (GUS) and placebo, did not show a significant difference in breast cancer risk between the two groups. Moreover, some observational studies have suggested that use of CE may be associated with a lower risk of breast cancer compared to placebo.

The aim of this study was to evaluate the effectiveness and acceptability of vaginal erbium laser treatment (VEL) for the treatment of genitourinary syndrome of menopause (GSM). Methods: VEL was evaluated either with subjective (visual analog scale, VAS) and objective (Vaginal Health Index Score, VHIS) measures. In PMW suffering from stress urinary incontinence (SUI), the international Consultation on Incontinence-Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) was administered before and after VEL treatment. Patients were treated with laser applications to the anterior vaginal wall, with screening visit prior to the first laser treatment (Baseline) and follow up visits after 4, 12 weeks, and 6, 12, 18 and 24 months from the last laser application. VEL treatment induced a significant decrease of VAS of both vaginal dryness and dyspareunia (p<0.01), with a significant (p<0.01) increase of VHIS. In the 48 patients suffering from mild-moderate SUI the VEL treatment induced a significant (p<0.01) decrease in the ICIQ-SF scores. The effects were rapid and long lasting, up to the 12 months of the observation period. VEL was well tolerated with a 3% of patients discontinuing treatment due to adverse events. Conclusion: This study demonstrates that VEL induces a significant improvement of GSM, including vaginal dryness, dyspareunia and mild-moderate SUI. Thus, VEL is reasonable, efficacious and safe as a new, second-generation, non-ablative photothermal therapy for the treatment of GSM. Further controlled studies are required to evaluate the use of VEL in combination with different therapeutic options, to offer a procedure in alternative or in association to proven therapies, as a new safe and effective option to treat GSM symptoms in menopausal practice.

ARE SCREENING AND DIAGNOSIS OF GESTATIONAL DIABETES MELLITUS BY IA DPSG CRITERIA EFFECTIVE? NO, SCREENING AND DIAGNOSIS BY IA DPSG CRITERIA IS NOT EFFECTIVE

Christian Göbb, Austria

In the past decades, diagnosis criteria for gestational diabetes mellitus (GDM) were repeatedly discussed and revised. In accordance with the IADPSG (International Association of Diabetes in Pregnancy Study Groups), hyperglycaemia in pregnancy is diagnosed if plasma glucose concentrations exceed one out of three thresholds during a 75g oral glucose tolerance test (OGTT): fasting ≥92 mg/dl (5.1 mmol/l); 1 hour after oral glucose load ≥180 mg/dl (10.0 mmol/l) and 2h after oral glucose load ≥153 mg/dl (8.5 mmol/l). Therefore, general OGTT screening is recommended between 24 and 28 weeks of gestation in all pregnant women. These recommendations for GDM screening and diagnosis were more recently adopted by the WHO and several national health care authorities. However, there are some major concerns: First, a single step screening reliant on one abnormal glucose value will significantly increase the number of pregnant women diagnosed with very mild forms of hyperglycaemia (about 18% in the entire HAPO cohort). Second, the OGTT is poorly reproducible. Third, there is actually no evidence of proven benefit of these recommendations. As another point of concern, most cases of macrosomia in the HAPO study occurred at glucose levels below the IADPSG thresholds and maternal overweight or obesity might be an even more important predictor. While the effectiveness of general OGTT screening as recommended by the IADPSG needs to be further evaluated in prospective studies, emerging technologies including continuous subcutaneous glucose monitoring as well as advanced mathematical models combining the information of postprandial glucose and insulin dynamics in addition to novel biomarkers could potentially provide more detailed insights into the (F)ceiling pathophysiological processes to further improve GDM classification. Also issues on cost-effectiveness need to be addressed: General screening requires high laboratory costs due to time expenditure and analyses of multiple blood samples. It is therefore an ongoing matter of debate how to reduce the number of invasive and expensive examinations in the clinical setting of pregnancy. Result: IADPSG is of particular importance for countries with less developed health care systems. An alternative to general screening as recommended by IADPSG is to do selective screening by use of clinical prediction models, including statistical combinations of several risk indicators to decide if it is necessary to proceed with further diagnostic tests. These might also include fasting plasma glucose, HbA1c for women requiring treatment and other biomarkers of more invasive examinations. Such models were shown to have excellent predictive performance in previous studies. General screening and diagnosis as recommended by IADPSG has possible advantages but also some major limitations. Therefore, alternative...
appreciates need to be further developed to provide even more effective strategies for risk stratification.

FETAL PROGRAMMING IN PERINATOLOGY, PREVENTING ADULT ILLNESS
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During pregnancy, which is also commonly known as ‘another state’, it is possible to discover and prevent health problems in women but also in newborn population. We are going to analyze early discovery of possible diseases, such as morbidity, through easier diagnosis in all specialties as well as careful, precise and good knowledge of perinatology. As perinatomists, we also have the power, the chance, as well as obligation not to let the capacity of newborn genetic basis to be decreased. By influencing the circumstances of child development, we do not let the child potential to be limited or handicapped under the influence of potential pathogenetic changes. Up-to-date researchers have discovered the magical power of fetal programming. Concerning the fact of great potential for making diagnosis using genetic mapping, in nearby future the precise detection and athropatogenesis would be easily made. The perinatomist familiar with modern principles of pregnancy follow-up will timely recognize the eventuality for development of gestational diabetes, screen and diagnose the disease and therapy prevent onset or postpone the onset of the diabetes mellitus type 2, which can decrease complications and improve future quality of life. This can be achieved by timely introduction of nutrition or the administration of insulin in pregnancy. This would enable the mother’s pancreas after delivery to recover with less stress during puerperium and to have its function at the satisfactory level without the medication support. What genetics and conditions of fetal environment dictate will manifest through clinical, laboratory and ultrasound changes which we establish in perinatology. But also, if not detected, it would be manifested later with pathologic conditions in newborns and their later life. Thus, Aristotle’s dilemma – which is older: chicken or egg – returns to its interesting but solvable circle. The following diagnoses could be established: ● Fetal macrosomia or even LGA (large for gestational age) by excluding genetic factors and establishing gestational diabetes; ● Intrauterine fetal growth retardation by exclusion of genetic factors and determining growth retardation in utero, as well as uteroplacental, placental, foetoplacental and even intra-fetal vasculopathies; ● Hypoxia, limitation in blood quality, especially in oxygen concentration which is supplied to the fetus by blood, with or without the change in fetal body weight; ● Decrease in amniotic fluid as a consequence of limited fetal renal function, in terms of decreased renal perfusion as a consequence of hydrops. The evidence on connection of fetal growth and chronic diseases during life are accumulating rapidly. This knowledge could have important implications in the prevention of chronic diseases related to nutrition, especially in the population with high incidence of low body weight which depicts poor maternal nutritive status. The current evidence on connection between fetal nutrition and risk of cerebrovascular disease during life, based on epidemiological and experimental data, could enable appropriate health care policy and strategy, which is of great importance especially for developing countries. The connection between maternal nutrition and child development is emphasized before the fetal growth determinants themselves. It is evident that smoking in pregnancy is recognized as risk factor for decreased birth weight and low birthweight. Fetal adaptive mechanisms: Pathophysiological fetal mechanisms: 1) Fetal glucocorticoids and resetting of hypothalamus-pituitary-adrenal axis; 2) Resetting of the insulin similar growth factor system. Morbidity prevention in a new person via fetus: ● Prevention of SGA; ● Prevention of macrosomia; ● Prevention of fetal macrosomia and LGA; ● Prevention of gestational diabetes; ● Prevention of intrauterine fetal growth retardation; ● Preparation of the pancreas for the postnatal period; ● Prevention of placental and uteroplacental insufficiency; ● Prevention of hydrops fetalis; ● Prevention of intra-fetal vasculopathies; ● Prevention of hypoxia, limitation in blood quality, especially in oxygen concentration which is supplied to the fetus by blood, with or without the change in fetal body weight; ● Prevention of renal failure; ● Prevention of atresia of the ductus arteriosus. Besides direct damage, there are two ways how stimuli and damages in early critical period may leave long-term consequences: 1. Induction, deletion or decreased development of certain somatic structures 2. Physiological events, such as hormonal axis resetting, with long-term consequences to function

MICRONA MIR-200B AFFECTS PROLIFERATION, INVASIVENESS AND STEMNESS OF ENDOMETRIOTIC CELLS BY TARGETING ZEB1, ZEB2 AND KLF4
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Endometriosis is characterized by growth of endometrial tissue at ectopic locations. Down-regulation of microRNA miR-200b is observed in endometriosis and malignant disease, driving tumour cells towards an invasive phenotype by epithelial-mesenchymal transition (EMT), miR-200b up-regulation may inhibit EMT and invasive growth in endometriosis. To study its functional impact on the immortalized endometriotic cell line KLE, the miR-200b onco-cell line ST-T1b, and primary endometriotic stromal cells, a transient transfection approach with microRNA precursors was employed. Expression of bioinformatically predicted targets for miR-200b was analysed by qPCR. The cellular phenotype was monitored by Matrigel invasion assays, digital-holographic video microscopy and flow cytometry. qPCR revealed significant down-regulation of ZEB1 (P < 0.05) and ZEB2 (P < 0.01) and an increase in E-cadherin (P < 0.01), miR-200b overexpression decreased invasiveness (P < 0.0001) and cell motility (P < 0.05). In contrast, cell proliferation (P < 0.0001) and the stemness-associated side population phenotype (P < 0.01) were enhanced following miR-200b transfection. These properties were possibly due to up-regulation of the pluripotency-associated transcription factor KLF4 (P < 0.005) and require attention when considering therapeutic strategies. In conclusion, up-regulation of miR-200b reverts EMT, emerging as a potential therapeutic approach to inhibit endometriotic cell mobility and aggressivity. This work is presented as the Robert-G. Edwards Paper Prize Award contribution and has been previously published (Eggers J.C. et al. Reproductive BioMedicine Online (2016) 32, 434–445)

ENDOMETRIAL RECEPTIVITY: HOW TO ASSESS IT AND IS IT KEY TO EMBRYO WASTAGE?
Georg Griesinger, Germany

Measuring endometrial thickness (EMT) and endometrial pattern is a routine part of IVF monitoring. A large number of studies have established an association of EMT with pregnancy likelihood, however, the majority of studies failed to test the impact of EMT among other potential confounders. A large systematic review of 22 studies recently reported that, in uni-variante analysis, a thin endometrium on day of triggering final oocyte maturation is related to a lower chance of pregnancy: the clinical pregnancy rate for an EMT<7mm was significantly lower compared with cases with EMT>7 mm [23.3% versus 46.1%, OR 0.42 (95% CI 0.27–0.67)] (Kasius et al., Hum Reprod Update 2014). However, it is unclear whether the endometrial thickness is more an epiphenomenon of potentially multiple predictive factors for IVF success such as ovarian response, age and patient history, rather than an independent contributor to the chance of achieving a pregnancy. Accordingly, the authors of the systematic review (Kasius et al., Hum Reprod 2014) called for “further research to investigate the actual independent significance of EMT in IVF”. A recent retrospective analysis of a large number of IVF cycles, utilizing a stepwise regression analysis to adjust for potential confounders, arrived at the following estimates: a 1 mm increase of EMT (per mm increase) and live birth likelihood: OR=1.078; p<0.001 after controlling for female age, the only significant predictor (Yuan et al., RBMonline 2016). Similar findings have been reported from a combined analysis of phase III trial data on luteal phase support with s.c. progesterone or vaginal progesterone when the EMT is measured on day of embryo transfer (Griesinger et al., ESHRE abstract 2016). In conclusion, the EMT is only a weak independent predictor of pregnancy likelihood and interventions to correct thin EMT have only a weak evidence basis and should be abandoned based on current evidence arises. The independent contribution of the endometrial pattern or subendometrial blood flow (assessed by Doppler) has not been studied in this context. Likewise, there has been a lack of test performance of gene expression arrays assessing endometrial receptivity not been elucidated and recommendations for clinical
management cannot currently be systematically derived from such tests.

HEREDITARY BREAST CANCER
Daphne Ghoch-Wannant-Kaulich, Austria

Breast cancer is the most common malignancy in women with a lifetime risk of 1 in 8. Although incidence of breast cancer is higher in western countries, cases are sporadic and only 5-10% are counted among genetic breast cancer. BRCA1 and BRCA2 mutations are responsible for about 5-7% of breast cancer cases. I will discuss current knowledge of BRCA1/2 mutations, their clinical consequences regarding early detection programs as well as prophylactic surgery and the development of multigene panels and their role in the future.

ARTIFICIAL GAMETES: READY FOR CLINICAL USE?
Björn Heindryckx, Ghent Fertility and Stem Cell Team (G-FaSiT), Department for Reproductive Medicine, Ghent University Hospital, Ghent, Belgium

Worldwide, infertility is a clinical condition that concerns 15% of couples. In 20% of cases, infertility is caused by male factors. In 28% of cases, infertility is caused by female factors. In 26% of cases, infertility is caused by both factors. In 20% of cases, infertility is caused by unknown factors. In 20% of cases, infertility is caused by unknown factors. In 20% of cases, infertility is caused by unknown factors.

Reprogramming somatic cells is nowadays possible. After a murine model, while the process is still poorly understood in humans. Since it does not require the need for oocytes or embryo formation as it has been shown that gametogenesis is species-specific. The entire process of gametogenesis from pluripotent stem cells, initially involving an in vivo step. After in vitro Gametogenesis in a mouse, the clinical sensitivity and specificity of an HPV test for the detection of CIN2+ and the NPV should not be significantly different from a suitable somatic niche and (iii) the stepwise use of appropriate culture conditions. The Abbott HPV test on the other hand, has shown that the entire process of gametogenesis from pluripotent stem cells can be established completely in vitro in the mouse. The keys to success were (i) the type of pluripotency state of the starting stem cell population being the naive state, (ii) the in vitro culture with a suitable somatic niche and (iii) the stepwise use of appropriate culture conditions. Efficiency of the IVG process is still low, compared to the HC2 test. In order to be applied in organized population-based screening settings, a new HPV test should fulfill a standardized set of requirements. First, the test should only detect those 13 HPV types previously classified by the IARC/WHO as carcinogenic Class I/IIA to humans. The clinical sensitivity and specificity of an HPV test for the detection of CIN2+ should be non-inferior in their clinical performance as compared to the HC2 test (kappa value >0.7). Intra- and inter-laboratory reproducibility on a routine screening cohort. All evaluated test methods showed a high degree of automatization, inter- and intra-laboratory reproducibility and non-inferiority in their clinical performance as compared to the APTIMA (Aptima, Inc.) and only four of these tests have received FDA approval for the US market. In order to be applied in organized population-based screening settings, a new HPV test should fulfill a standardized set of requirements. First, the test should only detect those 13 HPV types previously classified by the IARC/WHO as carcinogenic Class I/IIA to humans. The clinical sensitivity and specificity of an HPV test for the detection of CIN2+ should be non-inferior in their clinical performance as compared to the HC2 test (kappa value >0.7). Intra- and inter-laboratory reproducibility on a routine screening cohort. All evaluated test methods showed a high degree of automatization, inter- and intra-laboratory reproducibility and non-inferiority in their clinical performance as compared to the APTIMA (Aptima, Inc.) and only four of these tests have received FDA approval for the US market.
leads to a 23% reduction of the number of follow up procedures while at the same time lowering a high of CIN2+.

In summary, HPV tests greatly improve cervical cancer screening programs, but prior to their introduction into nationwide screening programs, they need to be validated best in pilot studies under real-life screening conditions or at least fulfill the criteria as documented above.

**VULVAR DERMATOSES: NATURAL HISTORY OF Lichen Sclerosis and Lichen Planus; Risk for Malignancy**

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Lichen Sclerosis (LS) and Lichen Planus (LP) are dermatoses which can affect also genital mucosa. Estimated prevalence for LS is 0.1–0.3% in a general hospital patient population and 1.7% in general gynecological practice. Respectively, LP prevalence among vulva clinic patients is estimated to be around 3.7%. Malignant potential of both dermatoses have been suspected, but evidence is sparse. There is an association with vulvar LS and subsequent vulvar squamous cell carcinoma (SCC). The estimated risk of developing vulvar SCC in the areas affected by LS is up to 5%. In contrast, extragenital LS does not seem to be associated with malignant transformation. There is an association between oral LP and oral squamous cell carcinoma (SCC). Also, some case reports of patients with LP and subsequent vulvar SCC exist. We used the population-based Finnish Cancer Registry data to further study this. We identified all women with the diagnosis of LS (n= 57,616), or LP (n=513,100) recorded in the Finnish Hospital Discharge Registry from 1970 or 1969 to 2012. The cohort was followed through the Finnish Cancer Registry for subsequent cancer diagnoses until 2014. Standardized incidence ratios (SIRs) were calculated for different cancers by dividing the observed numbers of cancers by expected ones. The expected numbers were based on national cancer incidence rates. During the follow-up period, we found 812 cancers among patients with LS (SIR: 1.15, 95% CI 1.15–1.18, 50 cases) and 1,520 among patients with LP (SIR 1.21) and 1,520 with LP (SIR 1.15, 95% CI 1.09–1.20). LS was associated with an increased risk of vulvar (182 cases, SIR: 33.6, 95% CI 28.9–38.6) and vaginal cancer (4 cases, SIR: 3.69, 95% CI 1.30–10.9). The risk of cancer of the uterine cervix and lung was significantly decreased. LP was associated with an increased risk of cancer of lip (SIR 5.17, 95% CI 3.06–8.16), cancer of tongue (SIR 12.4, 95% CI 9.45–16.0), cancer of oral cavity (SIR 7.97, 95% CI 6.79–9.24), cancer of esophagus (SIR 1.95, 95% CI 1.17–3.04), cancer of larynx (SIR 3.47, 95% CI 1.13–8.10) and cancer of vulva. Patients with diagnosed LS is associated with an increased risk for vulvar and vaginal cancer. Respectively, patients with LP have an increased risk of developing cancer of lip, tongue, oral cavity, esophagus, larynx and vulva. These data are important when considering treatment and follow-up of patients with a diagnosis of these dermatoses.

**CANCER IN PREGNANCY: NEED FOR CENTRALIZATION**

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**Problem Statement:** The incidence of malignancies coinciding with gestation is increasing. Cancer is the second most common cause of death during reproductive years and therefore presents a major public health issue. Diagnosis of cancer in pregnancy is challenging because of difficult differentiation between symptoms of cancer and normal pregnancy. Moreover, the management of cancer during pregnancy also presents a challenge. Patient's desire for its preservation complicates treatment choices. Decision about the best management should balance maternal and fetal interest. Women should be optimally managed by a multidisciplinary team.

**Methods:** This multi-center prospective study was undertaken at the Clinic for Obstetrics and Gynecology and Clinic for Hematology, Clinical Centre of Serbia from 2005 until 2013. All pregnant women who were diagnosed for cervical cancer were consecutively included in the study throughout a period of 9 years. Diagnosis of malignancy was based on pathology reports of tumor biopsies. Patients were followed-up for one year after delivery. The pregnancy course and outcome were evaluated. Furthermore, we investigated parameters that could influence the condition of mother and child. Obstetric parameters statistically analyzed using standard methods of descriptive and analytical statistics. Results: Study involved 32 patients aged in average 34 years. The majority of malignancies were hematologic. Most malignancies were diagnosed in the second trimester and treated with combined therapy after pregnancy. Majority of children were in good state throughout pregnancy, but were delivered in Gynecologic Section before term. All children of mothers who died during pregnancy did not survive. There were no adverse consequences of surgery during pregnancy, but chemo or radiotherapy deteriorated children conditions during pregnancy. The majority of both mothers (p=0.035) and children (p=0.013) were in good state 12 months after delivery, but numerous mothers were still ill at the same time (63/11/16/18 vaccine and a bivalent HPV 16/18 vaccine, protecting against infections and disease caused by the most oncogenic HPV types 16/18, the quadrivalent vaccine also against genitalic warts and lesions related to HPV 6 and 11. Today we know that the vaccines can protect against a variety of genital cancers in both male and female (cervical, vaginal, vulvar, anal, penile). A gender-neutral approach at an early age is most effective, the HPV vaccines have become pediatric vaccines, best applied at the age of nine. The early age of vaccination enables a reduced schedule of 2 doses with an interval of 6-12 months, which is recommended by WHO up to the age of 15. At this age, the immune response is superior and the likelihood of previous infections low. Some results are also available for vaccine efficacy with one dose. After some promising results for cross-protection against types not included in the vaccines (i.e. HPV 31/33/45), long term follow-up studies and real-life data suggest that the effect of cross protection is not long lasting and confounded by co-infections. Since 2016 a ninevalent HPV 6/11/16/18/31/33/45/52/58 vaccine is available, giving a robust protection (Vaccine efficacy 97%) against these types. The ninevalent HPV vaccine has been highly immunogenic in females and males from the age of 9, up to the age of 26, a study evaluating the immunogenicity in females up to the age of 45 is ongoing. The efficacy against disease related to HPV 6/11/16/18 was the same, a follow-up of the clinical trials up to six years is available. Since we have seen very impressive effects with the first generation in a real-life situation, reducing infections and disease related to the HPV vaccine types, we could expect almost an elimination of HPV related disease in long term with the second generation. A reduction of genital warts and pre-cancers has been demonstrated yet, in Australia with an excellent coverage (now up to the age of 35) a reduction of invasive cervical cancer should be visible soon. In Europe, all HPV vaccines are now licensed for both genders from the age of 9 without an upper age limit. The future in will be a gender-neutral vaccination with 2 doses at an early age with a bivalent HPV vaccine. In combination with the vaccination of adults and new algorithms for cervical cancer screening utilizing HPV testing, elimination of HPV related disease would be possible.

**GESTATIONAL TROPHOBLASTIC DISEASE: OUR EXPERIENCE**

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Gestational Trophoblastic Diseases (GTD), a group of specific gynecological neoplastic diseases, include complete and partial hydatidiform mole, malignant hydatidiform mole, choriocarcinoma, placental-site trophoblastic tumor (PSTT) and epithelioid trophoblastic tumor (ETT) (malignant diseases – Gestational Trophoblastic Neoplasms’s-GTN). Invasiveness, good vascularisation, metastasis-forming ability, relapsing and chemosensitivity are basic features of all GTDs. Being rare diseases, they require special attention, individual approach and centralized diagnostic and therapy. These conditions have unfavorable prognosis if not treated. Hydatidiform mole is usually treated with evacuation of the pathological pregnancy (dilation and suction curettage).

Hysterectomy is rarely required, except in cases of non-responding hemorrhage or in patients who concluded their reproduction. After the evacuation of molar pregnancy careful follow-up is required in order to detect persistent molar tissue or extension of malignancy. Most commonly chemotherapy is indicated. Follow-up is based on serum and/or urine beta-hCG analysis in strict timely manner. Treatment of GTN depends on age and reproductive status of patient and consists of chemotherapy or hysterectomy (not necessarily, fertility sparing
treatment is very likely in most of the cases). Once the chemotherapy is indicated (regardless of type of GTD), risk for development of resistance to single agent chemotherapy must be assessed with WHO Prognostic Scoring System, regardless of the FIGO stadia (WHO Prognostic Scoring System is not available for PSTT and ETT). If the disease is scored as low-risk, single agent chemotherapy can be used; otherwise combined chemotherapy is required. At the Clinic for Gynecological Oncology, Clinic for Obstetrics, Clinical University Hospital, Herlev, Denmark during the past 4 years 12 patients were successfully treated with dilatation and suction curettage (D&C) only due to partial hydatidiiform mole. In the same period, there were 6 cases of invasive hydatidiiform mole. All patients were treated following 3-7 cycles of single agent chemotherapy with Methotrexate, one with D&C following 4 cycle of combined chemotherapy (EMA-CO regime) and one with D&C and hysterectomy (in patients demand). All patients achieved complete remission (clinically and by the level of beta-hCG) and have been regularly and thoroughly followed-up to date. We have treated 6 patients suffering from choriocarcinoma during the last 4 years, 4 with combined chemotherapy (4-8 cycles according to EMA-CO regime) and 2 with combined chemotherapy only (10-11 cycles according to FMA-EM protocol). All patients achieved complete remission (clinically and by the level of beta-hCG) and have been regularly and thoroughly followed-up to date. During the same period there were 3 cases of PSTT, all of them underwent hysterectomy and 2 of them received combined chemotherapy following the EMA-EP protocol, all patients achieved complete remission, one patient died from other cause three and a half years after the diagnosis.

The incidence of placental malposition, including placenta previa and low-lying placenta requiring cesarean delivery, was 1.6% (95% CI: 0.6–3.6) in patients with adenomyosis (12.2%) compared with the control group (6.1%) (OR: 6.7, 95% CI: 2.7–18.2). Preeclampsia was significantly more common in the adenomyosis group (18.3%) than in the control group (1.2%). Moreover, the incidence of placental malposition, including placenta previa and low-lying placenta requiring cesarean delivery, was significantly higher in the adenomyosis group (14.2%) than in the control group (3.2%) (OR: 4.9, 95% CI: 1.4–16.3). Preterm delivery was also found to be significantly more common in the adenomyosis group (24.4%) than in the control group (9.3%) (OR: 3.1, 95% CI: 1.2–7.2). Cesarean delivery was significantly more common in the adenomyosis group (65.1%), compared with the control group (31.4%) (OR: 4.0, 95% CI: 1.9–8.6). The most common indication for cesarean delivery in the adenomyosis group were non-reassuring fetal status (NRSFS) (32.1%), which was significantly more common than in the control group (14.4%) (OR: 5.07, 95% CI: 1.73–14.2). The analysis of the neonatal outcomes revealed a significant difference in the median birth weight between the adenomyosis group (2716 g) and the control group (2972 g) (p<0.001). In addition, the birth of a SGA infant was significantly more likely in the adenomyosis group (20.5%) than in the control group (7.0%) (OR: 3.5, 95% CI: 1.2–9.0). When we investigate the reason of major obstetrical complication, we see that diabetes is the main risk factor. From the above mentioned result the uterine JZ plays a critical role in deep placenta, characterized by the transformation of the endometrial and myometrial segments of the spiral arteries that ensures adequate blood supply to the developing fetus. Defective deep placenta is the hallmark of various pregnancy complications, including second trimester miscarriage, placental abruption, pre-term birth, FGR and pre-eclampsia.

The miscarriage rate in women with adenomyosis is higher than in patients without adenomyosis. Oocytes donation is an appropriate model for evaluating the effect of adenomyosis on pregnancy outcomes. The quality of the replaced embryos is quite similar because of the age of the donors, and the environment of the uterus is standardized by exogenous steroid replacement. Women with adenomyosis alone showed a significantly higher rate of miscarry than those with endometriosis and adenomyosis (Conejero JM, 2011). In fact, adenomyosis group was significantly more likely to have successful pregnancy (adjusted OR = 1.84) and PPROM (adjusted OR = 1.98). Another study, a retrospective case–control study (machimaro A, 2015), indicated that there was an increased risk of preterm delivery, fetal growth restriction, and fetal malpresentation in patients with adenomyosis. A recent study (retrospective case–control study A 2017) including more than fifty-nine singleton pregnancy cases complicated with adenomyosis and 245 controls. They have demonstrated that significantly higher incidence of spontaneous second trimester miscarriage in the adenomyosis group (12.2%) than in the control group (1.2%) (OR: 11.2, 95% CI: 2.2–71.2). The incidence of Hypertension disorder of pregnancy was also significantly higher in the adenomyosis group (30.5%) compared with the control group (6.1%) (OR: 6.7, 95% CI: 2.7–18.2). Preeclampsia was significantly more common in the adenomyosis group (18.3%) than in the control group (1.2%). Moreover, the incidence of placental malposition, including placenta previa and low-lying placenta requiring cesarean delivery, was significantly higher in the adenomyosis group (14.2%) than in the control group (3.2%) (OR: 4.9, 95% CI: 1.4–16.3). Preterm delivery was also found to be significantly more common in the adenomyosis group (24.4%) than in the control group (9.3%) (OR: 3.1, 95% CI: 1.2–7.2). Cesarean delivery was significantly more common in the adenomyosis group (65.1%), compared with the control group (31.4%) (OR: 4.0, 95% CI: 1.9–8.6). The most common indication for cesarean delivery in the adenomyosis group were non-reassuring fetal status (NRSFS) (32.1%), which was significantly more common than in the control group (14.4%) (OR: 5.07, 95% CI: 1.73–14.2). The analysis of the neonatal outcomes revealed a significant difference in the median birth weight between the adenomyosis group (2716 g) and the control group (2972 g) (p<0.001). In addition, the birth of a SGA infant was significantly more likely in the adenomyosis group (20.5%) than in the control group (7.0%) (OR: 3.5, 95% CI: 1.2–9.0). When we investigate the reason of major obstetrical complication, we see that diabetes is the main risk factor. From the above mentioned result the uterine JZ plays a critical role in deep placenta, characterized by the transformation of the endometrial and myometrial segments of the spiral arteries that ensures adequate blood supply to the developing fetus. Defective deep placenta is the hallmark of various pregnancy complications, including second trimester miscarriage, placental abruption, pre-term birth, FGR and pre-eclampsia.

Parous women with adenomyosis experienced a 1.83-fold increased risk of spontaneous preterm delivery overall, as compared with gravid women without adenomyosis. After adjusted for covariates, gravid women with adenomyosis were associated with significantly increased risk of spontaneous preterm delivery (adjusted OR = 1.84) and PPROM (adjusted OR = 1.98). Another study, a retrospective case–control study (machimaro A, 2015), indicated that there was an increased risk of preterm delivery, fetal growth restriction, and fetal malpresentation in patients with adenomyosis. A recent study (retrospective case–control study A 2017) including more than fifty-nine singleton pregnancy cases complicated with adenomyosis and 245 controls. They have demonstrated that significantly higher incidence of spontaneous second trimester miscarriage in the adenomyosis group (12.2%) than in the control group (1.2%) (OR: 11.2, 95% CI: 2.2–71.2). The incidence of Hypertension disorder of pregnancy was also significantly higher in the adenomyosis group (30.5%) compared with the control group (6.1%) (OR: 6.7, 95% CI: 2.7–18.2). Preeclampsia was significantly more common in the adenomyosis group (18.3%) than in the control group (1.2%). Moreover, the incidence of placental malposition, including placenta previa and low-lying placenta requiring cesarean delivery, was significantly higher in the adenomyosis group (14.2%) than in the control group (3.2%) (OR: 4.9, 95% CI: 1.4–16.3). Preterm delivery was also found to be significantly more common in the adenomyosis group (24.4%) than in the control group (9.3%) (OR: 3.1, 95% CI: 1.2–7.2). Cesarean delivery was significantly more common in the adenomyosis group (65.1%), compared with the control group (31.4%) (OR: 4.0, 95% CI: 1.9–8.6). The most common indication for cesarean delivery in the adenomyosis group were non-reassuring fetal status (NRSFS) (32.1%), which was significantly more common than in the control group (14.4%) (OR: 5.07, 95% CI: 1.73–14.2). The analysis of the neonatal outcomes revealed a significant difference in the median birth weight between the adenomyosis group (2716 g) and the control group (2972 g) (p<0.001). In addition, the birth of a SGA infant was significantly more likely in the adenomyosis group (20.5%) than in the control group (7.0%) (OR: 3.5, 95% CI: 1.2–9.0). When we investigate the reason of major obstetrical complication, we see that diabetes is the main risk factor. From the above mentioned result the uterine JZ plays a critical role in deep placenta, characterized by the transformation of the endometrial and myometrial segments of the spiral arteries that ensures adequate blood supply to the developing fetus. Defective deep placenta is the hallmark of various pregnancy complications, including second trimester miscarriage, placental abruption, pre-term birth, FGR and pre-eclampsia.

Thickening and disruption of junctional zone appearance is strongly associated with adenomyosis. Adenomyosis represents a spectrum of lesions ranging from disruption of the junctional zone architecture with little or no endometrial invasion to overt diffuse adenomyosis and focal adenomyoma. Therefore, it is not surprising that these complications are seen with increasing frequency in adenomyosis. What can we do? Although evidence seemed to show that adenomyosis might be associated with negative impact on fertility, management of these patients is highly controversial: Firstly, we don’t know who will benefit from medical treatment alone, such as ART, and who will benefit from surgery? Secondly, we don’t know whether there will be an improvement in reproductive performance after the use of medical and/or surgical management. Can we improve obstetrical outcome with surgery? In a detailed review of the literature, 2014, pregnancy rates appear to be higher than 50% after localized adenomyosis surgery in younger women. This rate was higher that that presented by Dueholm M 2017. But, these studies and other two recent additional studies include women with extensive adenomyosis and older women. Saremi AT 2014 showed 23% live birth rate in women with extensive adenomyosis, and Khaled V 2014 showed 50% live birth rate in women with moderate adenomyosis.

Can we analyze the determining factors of successful pregnancy after surgery?
Advanced age, posterior wall involvement of adenomyosis, the severity of endometriosis and extent of adenomyosis, and adenomyosis at both anterior and posterior wall are negative factors relating to clinical pregnancy. We should discuss the perinatal complication of the surgery. Kishi Y reported two cases of placenta accreta of them, three of which severe adenomyosis affecting a broad range of the uterine subendometrial myometrium. For uterine rupture after adenomyomyometomy, only 22 pregnancies after IVF/ET 12 months after the operation and ruptured at 30 weeks of gestation, and the other patient became pregnant only one month after the adenomyomyometomy and ruptured at 28 weeks of gestation. And the third patient was by IVF 5 months after the operation and ruptured at 33 weeks. Therefore, a difficult pregnancy and a short interpregnancy interval seem to be risk factors for uterine rupture after adenomyomyometomy. There are no systematic data concerning pregnancies after adenomyomyometomy, such as a prior cesarean section or myomectomy.

Adenomyosis and delivery. Although most of the reported deliveries have been completed by cesarean delivery, there have been a few reports vaginal deliveries being allowed. Sporadic reports have outlined the risk of severe atomic postpartum hemorrhage in women with adenomyosis, when an evacuation is performed in the previous cycle is associated with improved implantation failure (RIF). It is hypothesized that a premature elevation of P4 levels prior to implantation failure (RIF). The embryo has to be transferred during the "window of implantation" (WOI), when the endometrium is receptive (Non-receptive endometrium is thought to be due to two previous embryo transfers). In three of these three ruptured cases, an adenomyomyometomy was performed by a laparoscopic operation; one patient was twin pregnancy by IVF/ET 12 months after the operation and ruptured at 30 weeks of gestation, and the other patient became pregnant only one month after the adenomyomyometomy and ruptured at 28 weeks of gestation. And the third patient was by IVF 5 months after the operation and ruptured at 33 weeks. Therefore, a difficult pregnancy and a short interpregnancy interval seem to be risk factors for uterine rupture after adenomyomyometomy. There are no systematic data concerning pregnancies after adenomyomyometomy, such as a prior cesarean section or myomectomy.

Mild forms of adenomyosis have limited impact while more severely affected women have poorer outcomes. For surgery, more complete removal of the adenomyotic nodules may ensure stronger wound healing on defected uterine myometrium. Especially in far advanced cases, it is quite difficult to balance between complete removal of adenomyosis and preservation of healthy uterine muscles. Some studies have shown that long-term gonadotropin-releasing hormone (GnRH) agonist administration before frozen embryo transfer significantly improved pregnancy outcomes in patients with adenomyosis. High intensity focused ultrasound is a new and promising treatment option for patients with adenomyosis, but its efficacy, safety, cost effectiveness and fertility outcome must be evaluated by randomized controlled trials. Preconception and prenatal counseling is important in adenomyosis patient. Pregnancy complications, such as preterm birth, pregnancy-induced hypertension, and placenta previa may be increased in patients with adenomyosis who are pregnant. And the delay in the start of fertility treatment. Such treatments can, however, still be offered upon proper counseling, especially to women with previous pregnancy loss or multiple fertility treatment failures.

CAN WE MAKE THE ENDOMETRIUM MORE RECEPTIVE?

Gab Kovacs, Australia

The last step in the IVF obstacle course, is implantation. The following factors need to be considered for successful implantation. Timing: The embryo has to be transferred during the "window of implantation" (WOI), when the endometrial phenotype is "receptive". Hormones: There is increasing evidence from observational studies and randomized controlled trials that in ovarian stimulated cycles the endometrium is poorly prepared, and it suggested by some, that all embryos should be frozen at the blastocyst change, with subsequent transfer in an unstimulated (natural or hormone replacement) cycle. Gene expression analysis: The Endometrial Receptivity Analysis (ERA®) focuses on recognizing the endometrial receptivity transcriptome. Non-receptive endometrium is thought to be due to transcriptional displacement of WOI. This is then used to develop a personalized progesterone administration regimen. Uterine microbiome: The microbiome of the endometrium can now be assessed by molecular techniques (polymerase PCR, microarrays and targeted and whole genome sequencing). It is proposed that presence of dysbiotic bacteria may be a cause of recurrent implantation failure (RIF). Destructrogen and progestrogen: It is a prerequisite elevation of P4 levels prior to ovulation trigger, may alter endometrial-embryo synchrony by temporally advancing the endometrial receptivity window. Endometrial "scratch": There is some evidence that endometrial injury performed in the previous cycle is associated with improved clinical pregnancy rates and live birth rates in women with more than two previous transfers. Removing intrauterine pathology: Women with RIF should have a hysteroscopy. There is evidence that removal of submucous fibroids, and maybe intramural fibroids and polyps will improve implantation rates. Dummy ET: Dummy ET minimizes the risk of a difficult transfer, increases pregnancy rate, and is a useful tool in IVF training programmes. Rest after ET: There is no evidence that this is beneficial. Sex after ET: There is growing evidence that sexual intercourse and, both before or around the time of embryo transfer may have benefits for IVF/ET success. NK Cells: Uterine Natural Killer Cells (uNKC) are specialized lymphocytes that play a role in regulating the remodeling of uterine spiral arteries. However, assays to test for NK cells in the blood and the uterus in women are highly controversial. As the role of uNKC in RIF is unproven, any therapeutic approach is not logical. Immunotherapy: RIF may often be caused by systemic or local immune disturbances. Several trials with or without control groups have investigated whether intravenous immunoglobulin (IVig) improves outcome after IVF/ICSI in RIF patients reporting a mean baseline rate ranging from 15% to 75%. However, only one trial was adequately randomized and the definition of RIF was generally unclear. Prednisolone has been tested in 13 randomized controlled trials among non-RIF patients undergoing IVF/ICSI. A meta-analysis found that it improved pregnancy rate after IVF but not ICSI. Intralipid has in two studies of women with "reproductive failure" been reported to be associated with subsequent birth rates similar to those after IVlg. However, one small randomized controlled study conducted in IVF patients suggested no beneficial effect of intralipid. Anticoagulant: Studies so far have failed to show that aspirin or heparin have benefits in cases of unexplained RM or the assisted reproduction field.

VACCINE CONFIDENCE AND HESITANCY: THE CASE IN DENMARK

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In October 2006, quadrivalent human papillomavirus (HPV) vaccination was licensed in Denmark. It was included in the free of charge childhood vaccination program in January 2009 covering 12-year old girls, and in catch-up programs for respectively girls 13-15 years (initiated October 2008) and women up to age 27 years (initiated in August 2012). The Danish HPV vaccination is delivered through a clinic-based program by general practitioners. Initially, a high vaccination coverage (80-90%) was achieved in most birth cohorts covered by the vaccination program in January 2009. Denmark was one of the first countries to demonstrate a real-world impact and effectiveness of HPV vaccination in relation to the occurrence of genital warts, and also related to cervical intraepithelial lesions (CIN) – including the high-grade lesions (CIN2/3). Despite a strong vaccination recommendation from the Danish National Board of Health and other organizations such as the Danish Cancer Society, there has subsequently been a substantial decline in HPV-vaccine coverage in Denmark. This decline in coverage is linked to reports of a number of women suffering from adverse events that may or may not be related to vaccination. A number of initiatives have been launched and these will be described and discussed.

PREVENTION OF PERI-MENOPAUSAL OBESITY BY DIET AND LIFE-STYLE INTERVENTION

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The menopausal leads to multiple endocrine and metabolic alterations, part of which are attributed to the decline of ovarian estradiol. Ovarian senescence causes a redistribution of fat in the abdomen, resulting in central adiposity, which together with dyslipidemia promote insulin resistance. Aging per se decreases energy expenditure, due to sarcopenia and reduced physical activity. Midlife, therefore, is a period when women usually gain weight. Measures to prevent perimenopausal obesity include primarily the incorporation of physical activity in the daily routine. Women should exercise at least 30 minutes daily with moderate intensity, like walking, or 75 minutes per week with exercise of vigorous intensity, like running. Exercise decreases insulin resistance and increases muscle mass, augmenting thus the basal metabolic rate. The diet should consist of nutrients rich in fiber, such as fruits and vegetables and should be low in refined carbohydrates, saturated fats and salt. Frequent small meals, of low glycemic load prevent the postprandial increase in insulin and the resulting storage of meal glucose and fat in adipose tissue.
**INFLUENCE OF HORMONAL CONTRACEPTION ON DEPRESSION**

**Outcomes of the study:**

5 to 10 percent of women of reproductive age are using antidepressant drugs (AD), and about one third are using hormonal contraception (HC). We aimed to assess the influence of different types of HC on the risk of becoming a user of AD or of getting a depression diagnosis.

**Material and methods:** In a prospective design, we followed 1.1 million women 15-34 years through the period 2000-2013. All included women were without previous mental illness, thrombosis or cancer and none had used AD in the preceding five years at entrance to the study. Exposure to AD, HC and depression diagnoses were retrieved from National Health Registries. Confounder control included age, length of education, calendar year, endometriosis, and PCOS.

**Results:** Within 6.8 million observation years, 441,523 started use of HC, 135,750 of combined oral contraceptives. Users of progestogen only-pills (2.18-2.31) gradually declining with increasing age. No consistent relationship between increased risk of primary and secondary adverse outcomes and increased maternal glycemia was shown. Within 6.8 million observation years, 441,523 started use of HC, 135,750 of combined oral contraceptives. Users of progestogen only-pills (2.18-2.31) gradually declining with increasing age. No consistent relationship between increased risk of primary and secondary adverse outcomes and increased maternal glycemia was shown.

**Conclusion:**

Users of HC are prescribed, and women should know this potential influence. Five to ten percent of women of reproductive age are using antidepressant drugs (AD), and about one third are using hormonal contraception (HC). We aimed to assess the influence of different types of HC on the risk of becoming a user of AD or of getting a depression diagnosis. Five to ten percent of women of reproductive age are using antidepressant drugs (AD), and about one third are using hormonal contraception (HC). We aimed to assess the influence of different types of HC on the risk of becoming a user of AD or of getting a depression diagnosis.
HRT: WHI AUTHORS CLAIM WRONG DATA INTERPRETATION

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The Women's Health Initiative (WHI) trial was designed to address the risks and benefits of long-term use of HRT for the prevention of chronic diseases in postmenopausal women. 8,006 women with uterus have been treated during 5.6 years with conjugated equine estrogens (CEE, 0.625 mg/d) combined with medroxyprogesterone acetate (MPA, 2.5 mg/d) compared with 8,102 women getting placebo, and within the estrogen-only arm 5,310 hysterectomized women have been treated during 7.2 years with CEE (0.625 mg/d). The combined arm was primarily stopped because a "global index" (which indeed was not defined before start of WHI) pointed to an increased risk using HRT despite only the risk of pulmonary embolism was significantly increased according to the adjusted confidence intervals. The estrogen-only arm was stopped when it was argued that estrogen-only would not protect from coronary heart disease, which was wrong: later it was clear that longer treatment should achieve not only cardio protection but also protection from the development of breast cancer. The population of the WHI was, for initiation of HRT, too old (mean age at start 63 years), and 50% of the women had most important risk factors like obesity, hypertension or being smokers, and up to 10% had already preexisting cardiovascular diseases. Recently two of the authors published that they regret that the WHI data have been misinterpreted for years (JE Manson, AM Kaunitz. HEJTM 2016; 374:9-11): its results are now being used inappropriately in making decisions about treatment for women in their 40s and 50s. Another WHI author very recently has given more insight about the history of the first publications claiming that most WHI authors did not have enough time to look over all data before the detrimental JAMA (2002) publication was redacted (RD Langer. The evidence base for HRT: what can we believe? Climacteric 2017; 20: 91-96). Not only has hormone therapy prescribing by obstetrician–gynecologists and internists or family physicians decreased substantially, but the new generation of medical and primary care providers often lacks training and core competencies in management of menopausal symptoms and prescribing of hormonal (or non-hormonal) treatments. Very recently Manson, JE et al. published (JAMA 2017; 318:927-938) that not only during the interventional phase but also during cumulative follow-up of 18 years the mortality, most important endpoint of studies, was not increased. Neither all-cause nor cardiovascular nor cancer mortality was increased in both arms. Remarkably breast cancer mortality during estrogen-only was to a large extent (45%) significantly decreased, and surprisingly (considering being a disease of older women) also Alzheimer's or dementia mortality was significantly reduced. Derived from those results the presentation will stress the latest evaluation and guidelines for the use of HRT which should also include a revival of HRT for the treatment of climacteric symptoms and certain preventive options in peri- and postmenopausal women.

CHROMOSOME ABNORMALITIES CAN BE INDUCED BY FERTILIZER CENTER PRACTICES

Santiago Munne, USA
Chief Scientific Officer CooperGenomics

Chromosome abnormalities have been linked in the past to culture conditions such as temperature and pH variations, as well as hormonal stimulation. Those reports were performed with older screening techniques (FISH), or ART methods no longer in use, and the subjects studied were not a homogenous group. Our recent study (Mune et al. 2017) demonstrates that during human assisted reproductive cycle, embryonic chromosome abnormalities may be partly iatrogenic. That study included 1645 donor oocyte cycles undergoing PGS by aCGH from multiple different clinics. The completely clinical controlled euploidy rate was associated with the referring center and independent of other parameters. While the average euploidy rate per center ranged from 39.6 to 82.1%, the median euploidy rate was 68.4%. This is the first study to show a strong association between center-specific treatment practices and aneuploidy rates in human embryos. That study was performed using aCGH which cannot detect mosaicism as well as well as aCGH. A subsequent study by Sachdev et al. (2016) showed that the differences between centers were both in aneuploidy and mosaic rates, with euploidy rates ranging from 35%-57%, aneuploidy free from 19%-37%, and mosaicism from 16-44%, but when aneuploidy was high mosaicism was low and vice versa. The reasons from these differences could be many, one of them the culture conditions. Hickman et al. (2016) published significant differences in euploidy rate within the same center when using different culture media. On the other hand, McCullough et al (2017) recently presented at ASRM that within the same IVF center, euploidy rates between physicians and that this was linked to hormonal stimulation, with euploidy rates increasing with decreasing days of stimulation, decreasing dose/day but increasing MII numbers.

Hickman et al. (2016) Human Reprod, 31; Supp 1: 216 - 217; P-203
McCullough et al. (2017) ASRM

DETECTION PREGNANCY POTENTIAL OF MOSAIC EMBRYOS

Santiago Munne, USA
Chief Scientific Officer CooperGenomics

The objective of this study was to determine the pregnancy outcome potential of euploid, mosaic and aneuploid embryos, detected by PGS with Next Generation Sequencing (NGS). Blastocysts were assessed by trophectoderm biopsy followed by PGS by use of aCGH or High Resolution Next Generation (hr-NGS). If by hr-NGS, they were classified as aneuploid (>80% abnormal cells), mosaic (20-80% abnormal cells), or euploid (<20% normal cells). Those embryos replaced were followed to second trimester or later of pregnancy. When comparing aCGH and hr-NGS cycles in which euploid embryos were replaced including only those centers that used both techniques, the OPR per cycle was significantly higher for hr-NGS (62%) than for aCGH (54%) (p<0.001). In contrast, the replacement of embryos classified by hr-NGS as mosaic resulted in 24% miscarriages (p<0.001 vs euploid by NGS) compared to 5% for euploid embryos (p<0.001), and 37% OIR per cycle compared to 76% for euploid embryos (p<0.001). Mosaic embryos with >40% abnormal cells had an OIR of 50%, significantly higher than the 39% of mosaics with 40-80% abnormal cells and 6% of complex mosaics. There was no difference between monosomic and trisomic mosaics, between entire chromosome mosaicism or segmental mosaicism, or with the chromosome number involved in the mosaicism. This suggests that a different mechanisms of mosaicism formation for preimplantation and prenatal mosaicism. All the cycles with follow-up up to 20 of the aCGH pregnancies and 7 of the hr-NGS pregnancies resulted in chromosomally abnormal conceptions. Of these 32 discrepancies, 3 were below the resolution of the technique, and in one the DNA of the embryo did not match the DNA of the POC. The other 28 remaining discrepancies, 6 were mosaic by NGS, 7 mosaic by Prenatal Diagnosis, 14 could be caused by several factors, and one was a 6.5 Mb deletion missed by hr-NGS (Table 4 and 5). Two of the abnormal fetuses were trisomy 21 and one was mosaic trisomy 21, that is 3/4411 pregnancies (0.068%) or 1/1470, compared with the estimated risk of 1/270 for women 35 years old, or >10X less.

Hickman et al. (2016) Human Reprod, 31; Supp 1: 216 - 217; P-203
McCullough et al. (2017) ASRM

USING BLUE LIGHT TO SUPPRESS MELATONIN AND ACUTE PRETERM CONTRACTIONS

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Every tenth pregnancy ends prematurely, leading to numerous neurological, immunological and respiratory disabilities in the preterm newborn and a considerable burden on healthcare systems. Despite decades of research, there is currently neither a prophylactic nor an effective pharmacological treatment against preterm labor. Thus, there is a critical need to better understand the mechanisms driving uterine contractions during labor (both term and preterm) in order to develop effective new strategies for preventing preterm birth in the future. In that regard, understanding the role of serotonergic and melatonergic signal transduction has been shown to provide a key hormonal trigger for the initiation of uterine contractions in late term pregnant myometrium. Subsequent early stage clinical trials have tested the hypothesis that removing melatonin’s drive to the pregnant woman’s contracting...
myometrium will reduce uterine contractions. In a series of published
articles, we have demonstrated that in pregnant volunteers one-hour-long exposures to white light (10,000 lux) consistently and significantly suppressed melatonin secretion as well as uterine or breast stimulation. Data showing that the bazedoxifene -like pharmacological profile were described in a recent review which provides a summary of the main SERM groups, classified ac-
cording to chemical structure. Certain phytoestrogens, such as genistein and daidzein, also appear to have a SERM-type pharmacological profile. Presently, the two chemical classes of SERMs of greatest clinical use are the derivatives of triphenylethylene (most especially tamoxifen, which is used for the prevention and treatment of breast cancer) and the derivatives of benzothiophene (with RLX as an example, indicated for the prevention and treatment of postmenopausal osteoporosis, and for the prevention of breast cancer in the USA. Newer agents are being developed clinically for the prevention and/or treatment of osteoporosis and breast cancer and optimally for the treatment of vaginal atrophy (Bazedoxifen, Lasofoxifene, Ospemifene). The evidence suggests that each SERM needs to be independently studied and their clinical responses evaluated. A new concept, TSEC (Tissue Selective Estrogen Complex), has the potential to demonstrate the benefits of SERMs along with the additional benefits of estrogens, apparently without the need for gestagens. One could define the therapeutic combination of a SERM with estrogen. Data showing that the bazedoxifene-conjugated estrogens combination significantly reduces hot flushes, improves vaginal atrophy and increases bone mass with little or no uterine or breast stimulation.

GUIDELINES FOR HPV SCREENING IN EUROPE

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Primary screening for high-risk HPV genotypes (hr-HPV) generally detects more CIN2, CIN3 or cervical cancer compared to cytology at cut-off ASC-US or LSIL, but is less specific according to the last European guidelines for quality assurance in cervical cancer screening (von Karsa et al. Papillomavirus Res 2015; 1:22-31), primary HPV testing can be used only in a population-based program for cervical cancer screening; HPV testing outside such programs is not recommended. In contrast to United States, only one primary test (either cytology or testing for oncogenic HPV) should be used at any given age in cervical cancer screening in Europe. Cervical cancer screening program should adopt a HPV primary test for use only if it has been validated by demonstrating reproducibility, consistently high sensitivity for CIN2+ and CIN3+ lesions, and only minimal detection of clinically irrelevant, transient HPV infections. HPV tests (neither commercial nor in-house tests) that have not been clinically validated should not be used in clinical practice. HPV testing should be performed only on samples processed and analyzed in qualified laboratories, accredited by authorized accreditation bodies and in compliance with international standards. The laboratory should perform a minimum of 10,000 HPV tests per year. Routine HPV primary screening can begin at age 35 years or above and should not begin under age 30 years. HPV primary screening can stop at the upper age limit recommended for cytology primary screening (60 or 65 years), provided a woman has had a recent negative test. The screening interval for women with a negative HPV primary test result should be at least 5 years and may be extended up to 10 years depending on the age and screening history. Screening program should carefully monitor management of HPV testing results and must adopt specific policies on triage, referral and repeat testing of women with positive primary HPV test. At present, cytology triage is the preferred triage system in Europe. Women testing positive for oncogenic HPV at primary screening should be tested without delay for cervical cytology; direct referral to colposcopy of all HPV-positive women is not recommended. The clinical accuracy of HPV primary testing on self-collected samples taken for cervical screening is sufficient to conduct organized, population-based pilot program for women who have not attended screening despite a personal invitation and a personal reminder. The feasibility and sustainability of the HPV-based screening program should be assured through adequate resourcing and coordination, including coordinated planning, feasibility and pilot studies, and quality-controlled rollout across a country or region.

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SURGICAL MANAGEMENT OF VULVAR VESTIBULITIS SYNDROME BY VESTIBULECTOMY

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Vulvar vestibulitis syndrome (VVS), also called vestibulodynia or locally provoked vulvodynia (LPV), is a complex vulvar pain syndrome (VPS) characterised by altered pain sensation. VVS causes severe dyspareunia and affects mainly young women. The etiology is unknown. Recent studies on LPV have demonstrated activation of vestibule-associated lymphoid tissue (VALT) which may emerge as a response to local infection or inflammation. This immune activation enhances excessive epithelial nerve growth in the vestibular mucosa which then leads to allodynia. No uniformly effective treatment modality exists. Clinical algorithms have been developed, and such algorithms are useful and augment the management of refractory VVS cases. Surgical treatment by vestibulectomy is usually offered to the most severe cases refractory to conservative treatment modalities, including discontinuation of oral contraceptives, physiotherapy for pelvic floor dysfunction, and antimycotic maintenance therapy. Vestibulectomy operation is strikingly effective in such severe cases, and is associated with high patient satisfaction. Vestibulectomy is a day surgery operation.

Postoperative complications of posterior vestibulectomy are rare. Potential complications include postoperative bleeding, postoperative wound infection, Bartholin’s cyst development, and sometimes scarring. Recurrence rate is low if proper pragmatic operative technique is used. One problem is the lack of randomised controlled trials of vestibulectomy. This is not surprising, however, since vestibulectomy is generally offered as the last resort in the most severe cases hence introducing selection bias. In vestibulectomy operation, the vestibular mucosa containing high density of nerve fibers and nerve fiber proliferation is removed from 2 to 10 o’clock, and replaced by vaginal mucosa, properly liberated. Long-term follow-up studies have demonstrated that this operation is associated with high patient satisfaction, and significantly improves the quality of life of such desperate women with severe VPS.

IMPACT OF DIFFERENT SERMs ON BREAST CANCER

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SERMs represent a class of drugs with an ever-increasing number of compounds, characterized by their action as tissue-specific estrogen receptor (ER) agonists/antagonists. This pharmacologic approach may offer the opportunity to achieve favorable estrogenic effects, without negative stimulatory effects on the endometrium and breast. SERMs are chemically diverse compounds that lack the steroid structure of estrogens, but possess a tertiary structure that allows them to bind to the estrogen receptors (ERs). The mechanism of mixed agonist/antagonist may differ depending on the chemical structure of the SERM, but at least for some SERMs, it appears to be also related to differential ER alpha and ER beta expression, the ratio of co-activator proteins that bond with the SERM-estrogen receptor complex is different for each SERM and for each tissue, stimulating and blocking the different genes with different biological responses. This entire molecular mechanism determined for each SERM has different outcomes. There is an extensive list of compounds that can be considered SERMs for which there are available results in either in vitro cellular models or in vivo animal and human experiments. Approximately 100 molecules with a SERM-like pharmacological profile were described in a recent review which provides a summary of the main SERM groups, classified ac-
cording to chemical structure. Certain phytoestrogens, such as genistein and daidzein, also appear to have a SERM-type pharmacological profile. Presently, the two chemical classes of SERMs of greatest clinical use are the derivatives of triphenylethylene (most especially tamoxifen, which is used for the prevention and treatment of breast cancer and the derivatives of benzothiophene (with RLX as an example, indicated for the prevention and treatment of postmenopausal osteoporosis, and for the prevention of breast cancer in the USA. Newer agents are being developed clinically for the prevention and/or treatment of osteoporosis and breast cancer and optimally for the treatment of vaginal atrophy (Bazedoxifen, Lasofoxifene, Ospemifene). The evidence suggests that each SERM needs to be independently studied and their clinical responses evaluated. A new concept, TSEC (Tissue Selective Estrogen Complex), has the potential to demonstrate the benefits of SERMs along with the additional benefits of estrogens, apparently without the need for gestagens. One could define the therapeutic combination of a SERM with estrogen. Data showing that the bazedoxifene-conjugated estrogens combination significantly reduces hot flushes, improves vaginal atrophy and increases bone mass with little or no uterine or breast stimulation.

HELLP SYNDROME IN PREGNANCY

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HELLP syndrome represents severe complication of pregnancy characterized by hemolysis, elevated liver enzymes and low platelets. Timely recognition if this disorder is essential to prevent very high extent of maternal and fetal complications. Maternal mortality, when it occurs, is due to microangiopathic hemolytic anemia. Presence of schizocytes indicates hemolysis. The levels of LDH are elevated due to destruction of red blood cells. Free hemoglobin is converted to unconjugated bilirubin which binds to haptoglobin. Hemoglobin -
Antithrombin III in 44.7% of cases. HELLP syndrome is still diagnostic and therapeutical challenge in modern obstetrics. Precise diagnosis of fetal complications were IUGR, oligoamnion, and asphyxia. IUGR was treated with antihypertensive therapy. Low platelet count is a consequence of their consumption. According Mississippi classification Class of 2 HELLp syndrome was present in 52.6% of cases. There were no patients with Class 1 of the syndrome. The majority of patients (97.4% of cases) were delivered by emergency cesarean section. Average gestational age in time of delivery was 32.76 weeks. Pregnancies were terminated before 27 weeks of gestation in 81.6% of cases. The diagnosis was established according to clinical symptoms, and laboratory findings indicating hemolysis. Average time to normalisation of platelet count was 2.82 days, transaminases 4.5 days and LDH 6.32 days. Averag time to normalisation of hemoglobin was less than two days. The average weight of newborns was 1635g. Most common major complications were IUGR, oligoamnion, and asphyxia. Antithrombin, fresh frozen plasma, and corticosteroids. The incidence of HELLP syndrome in Clinic of Gynecology and Obstetrics, Clinical Centre of Serbia, tertiary health care facility, in two years period was 0.27%. Average age of patients was 32 years, 79% were primiparous, with spontaneous pregnancies in 81.6% of cases. The diagnosis was established according to clinical symptoms, and laboratory findings indicating hemolysis. According Mississippi classification Class of 2 HELLp syndrome was present in 52.6% of cases. There were no patients with Class 1 of the syndrome. The majority of patients (97.4% of cases) were delivered by emergency cesarean section. Average gestational age in time of delivery was 32.76 weeks. Pregnancies were terminated before 27 weeks of gestation in 10.5% of cases, between 27-34 weeks in 52.6% and after 34 weeks in 36.8% of cases. Average time needed to establish the diagnosis was less than two days. Average time to normalisation of platelet count was 2.82 days, transaminases 4.5 days and LDH 6.32 days. The average weight of newborns was 1635g. Most common fetal complications were IUGR, oligoamnion and asphyxia. IUGR was present in 84.2% of cases. Intrauterine fetal demise occurred in only one patient (2.6%), in pregnancy of 25 weeks of gestation. All patients were treated with antihypertensive therapy. Corticosteroid treatment was applied in 60.5% of cases, primarily in order to promote fetal lung maturation. Blood transfusions were administered in 97.4%, and Antithrombin III in 44.7% of cases. HELLP syndrome is still diagnostic and therapeutical challenge in modern obstetrics. Precise diagnosis and early onset of treatment leads to better maternal and fetal outcomes.

**REFERENCES:**


**MANAGING OBESITY: THE PLACE OF BARIATRIC SURGERY**

**Gerhard Prager**, Austria

**Background:** The worldwide spread of Obesity and its related diseases are a challenge for the healthcare systems in the 21st century. Diabetes, Hypertension, Cardiovascular disease and cancer are consequences of obesity. This talk will highlight the place of bariatric surgery in the treatment armamentarium regarding obesity.

**Material and Methods:** Modern Bariatric surgery respects the patient’s individual life circumstances and comorbidities. Operations are performed by laparoscopy – hence enabling short hospital stay and quick recovery. For high BMI classes operations with a malabsorptive component provide excellent weight loss in the long term. Worldwide more than 500,000 operations are performed per year by year. **Results:** Depending on the different operations, diabetes remission rates up to 80% and Excess Weight Loss up to 75% can be achieved. Several studies confirm these excellent results up to 20 years and more. Patients need to be followed lifelong to avoid deficiencies and nutritional problems.

**Discussion:** Bariatric Surgery is by far the most effective way to treat obesity and its related comorbidities. Patients should be accompanied through the process by a multidisciplinary team to optimize the long-term success of the operation.

**THE PROS AND CONS OF ANEUPLOIDY EMBRYO TRANSFER**

**Siobhan Quenby,** UK

Human reproduction involves high levels of mosaicism amongst embryos and as such is then a stochastic process. mosaicism is so prevalent that it must be considered as a part of normal human reproduction. The questions is should and when should we attempt to interfere with the natural human process that has been lived over millions of years. The pros of Aneploid embryo transfer are that it mimics normal physiology and allows the maternal decidua to decide which embryo to invest in. The maternal decidua is exceptionally good at this selection process as evidenced from existing clinical data, where out of 450 pregnancies in women with recurrent miscarriage and balanced translocations only one live birth had an unbalanced translocation when 225 live births with unbalanced translocations would have been predicted. In addition, some embryos thought to been aneuploid have led to healthy live births presumably because they were mosaic so that the testing was not representative of the whole embryo. The Cons of aneuploid embryo transfer are that some couples are so traumatised by their experience of miscarriage that they can only embark on future conception attempts if the risk of miscarriage is minimised by euploid embryo transfer. If the cause of the couple’s sub-fertility is failure of the decidual selection mechanism then there is a case for embryo transfer Class 3 in 47.4% of cases. Couples with loss of decidual selection can present either as recurrent miscarriage where pregnancies that should have been lost at menstruation persist and as miscarriage. Karotyping of their 75% of pregnancies reveals aneuploidy with each loss. Alternatively, the selection mechanism may be too severe so that all mosaic embryos are rejected and the couple present as recurrent failed IVF attempts. A solution to the opposing sides of this debate should be to have a personalised approach. This approach involves collecting as much information about the cause of the couple’s sub-fertility as possible, to understand the couple’s reproductive problems and to come to a treatment plan specific for each couple.

**CREATION OF GERM CELLS IS THE SOLUTION FOR FERTILITY PRESERVATION**

**Sjoerd Reeping**, Netherlands

Fertility preservation currently entails cryopreservation of male or female gametes before gonadotoxic treatment or before age-related fertility decline. Once cryopreserved, these gametes will largely maintain their developmental potential and can be thawed in the future to allow for fertilization in vitro and subsequent embryo transfer. An inevitable drawback however is that the number of stored gametes is limited and for the most part their use requires costly and burdensome treatments such as ICSI. On the contrary, the use of stem cells to restore fertility theoretically removes the necessity to store gametes before gonadotoxic treatment and could perhaps also allow for future natural conception. This talk will focus specifically on the use of spermatogonial stem cells to preserve and restore male fertility.

**COMMERCIALIZATION OF UNPROVEN TECHNOLOGIES IN REPRODUCTIVE MEDICINE**

**Sjoerd Reeping**, Netherlands

Novel treatments or add-ons are continuously and rapidly introduced into clinical care to answer the demands of infertile patients to achieve pregnancy. The introduction of such technologies goes through the hands of reproductive specialists, who should follow the primary principle of medicine, first do no harm. At the same time, the push to help patients not only stems from patient demands but equally from commercial companies trying to rapidly make a profit on their products as well as from reproductive specialists that try to outcompete other clinics or to increase the earnings of their own clinic. This then inevitably leads to a misbalance between commercial and medical interests, with patients being the victims. This talk will use multiple examples to illustrate that novel technologies are repeatedly introduced into clinical care without proper preclinical and clinical studies on effectiveness and safety.

**TIME LAPSE TO OPTIMIZE EMBRYO CULTURE: FIRST STEP TOWARDS AUTOMATION IN IVF**

**Laura Francesca Rienzi**, Italy

There is today a poor standardization between centers in the embryo culture system used. Volume of the culture media, atmospheric conditions, temperature and pH are highly diverse between centers. These aspects may significantly affect the overall efficacy of the
THE LONG-TERM CARDIOVASCULAR CONSEQUENCES OF SGA
Lila Seidl-Mliczoch, Austria

Every year cardiovascular disease accounts for 3.9 million deaths in Europe and 1.8 million in the EU. Premature birth rate in Europe varies between 5.5 to 11.1% in recent years. Early neonatal deaths are due to preterm delivery in 28%. In recent years care for preterm babies has improved and the overall survival rate has dramatically increased. Nevertheless, preterm delivery in addition to other prenatal risk factors such as small for gestational age (SGA) has been shown to have an impact on later life. Intrauterine growth restriction (IUGR) has been associated with long term neurodevelopmental problems. Recent research has drawn the focus on long term morbidity in adulthood. Being small for gestational age and preterm makes these babies more susceptible for diabetes, cardiovascular disease overall known as metabolic syndrome in later adulthood. It has been proposed that changes are not only present in fetal life in these babies but seem to have their origin in fetal life as proposed by Barker in 1992. He postulates that these diseases originate through malnutrition during fetal life. Coronal heart disease for example is associated with low birth weight and low placental weight. In addition, it seems to be correlated to rapid increase in body mass index after the age of 2. Hemodynamic alterations and adaptations as a response to intrauterine starvation are thought to influence developing organs with long term consequences in adult life. It has been shown that children born small for gestational age have increased blood pressure, elevated heart rates, impaired glucose regulation, atherosclerotic lipid profiles, arterial stiffness and a wide range of long-term problems including arteriosclerosis and coronary heart disease in adulthood. Research in this field has led to the development of screening tools to recognize fetuses and children at risk for long term cardiovascular consequences. Recent studies have shown that cardiac dysfunction in IUGR is an early and progressive event and cardiac remodeling persists into young adulthood. Aortic intima thickness is currently a helpful noninvasive marker of preclinical atherosclerosis and is used as a screening tool for atherosclerosis in young children born with SGA.

CIN 2-3 IN PREGNANCY – OBSERVATION OR LLETZ IN THE FIRST 15 WEEKS OF PREGNANCY
Efrain Siegler1, Ofir Lavie1, Amnon Amit2, Yakir Segev3, The Israeli Colposcopy Network1, Zeev Blumenfeld1, ᵃ Department of Obstetrics & Gynecology, Carmel Medical Center, ᵇ Department of Obstetrics & Gynecology Rambam Health Care Campus, ᶜ Rappaport Faculty of Medicine, Technion, Haifa, Israel. * The Israeli Colposcopy Network: Rami Bali, Rami Muhonov, Jacob Niv, Tal Zion, Eduardo Schechter, Zvi Vaknin and The Israeli Society of Colposcopy and Cervical Pathology

Introduction: Cervical intraepithelial neoplasia 2-3 (CIN 2-3) is a premalignant lesion and Large Loop Excision of The Transformation Zone (LLETZ) is the recommended treatment in women diagnosed with CIN 2 or CIN 2-3 lesions. During pregnancy observation is recommended because of the belief that pregnancy during that time there is no progression to malignancy and the treatment is associated with severe complications. Summarizing data from literature, pregnant women over the age of 25 with CIN 2-3 lesion has a risk of 7.4% to be diagnosed with invasive cervical cancer after delivery. The aim of the present study is to describe the Israeli experience in pregnant women diagnosed with CIN 2-3 lesion and the safety of LLETZ in the first 15 weeks of pregnancy.

Methods: We collected data of 106 pregnant women that were diagnosed with CIN 2-3 between January 2006 and August 2017. 85 of them were treated in our clinics and we received data on 61 women from the Israeli society of colposcopy about 21 women. Results: 61 women were followed and 45 underwent LLETZ during pregnancy. Comparing the observation group to the LLETZ group the mean age 31.8 years versus 32.4 years respectively, mean LLETZ height 3.93 cm versus 0.92 cm, smoking history 14% versus 16.2%. Free margins at LLETZ in our study was in 65.9% of the women compared to 73.1% of the women in a study of our population. In 61 women who were observed and evaluated after delivery the final pathological results were: 4 (6.6%) diagnosed with cervical cancer, 40 (65.8%) had CIN 2-3, 17 (27.9%) had CIN 1 or normal histology. Of the 40 women with CIN 2-3 during the first trimester invasive cancer was diagnosed in 2 (4.4%), CIN 2-3 or AIS in 40 women (88.9%) and 3 patients (7.3%) had CIN 1 or normal histology. 38 women continued the pregnancy and 2 women (5.3%) had term deliveries, two (5.3%) had late premature deliveries (34, 36 weeks) and two women (5.3%) had missed abortion after the LLETZ.

Conclusions: The risk of CIN 2-3 progression in pregnant women with CIN 2-3 diagnosed during pregnancy. The LLETZ procedure during the first 15 weeks of pregnancy is safe. The complications rate of severe bleeding (2.2%), abortion (4.4%), and late premature delivery (4.4%) are low and similar to the general population. In conclusion, we suggest reconsidering the indications and contraindications regarding CIN2-3 treatment during pregnancy in patients older than 25 years old, and performing this operation more liberally during the first trimester as it has been shown to carry minimal risks and significant benefits.

HRT: HAVE THE RISKS BEEN OVERESTIMATED? WILL IT REBOUND TO THE PRE-WHI ERA? YES
Tommaso Simoncini
Department of Clinical and Experimental Medicine, University of Pisa, Italy

Hormone replacement therapy (HRT) was exposed to a dramatic impact by the first publications of the Women’s Health Initiative (WHI) hormone therapy trial in 2002. The double-blinded, placebo-controlled, randomized clinical trial was conducted among US postmenopausal women aged 50 to 79 years at enrollment. The average age of patients in both trials was 63 years: the average patient using hormone therapy is appreciably younger and usually commencement of hormone therapy is not recommended for women who are aged >60 years. This trial tested the most common formulations of HT: conjugated equine estrogens (CEE) plus medroxyprogesterone acetate (MPA) for women with an intact uterus and CEE alone for women with hysterectomy. The CEE plus MPA trial was stopped after 5.6 years due to an increased risk of endometrial cancer; the CEE-alone trial was stopped after 7.2 years due to an increased risk of stroke. Oestrogen deficiency is the principal pathophysiological mechanism that underlies menopausal symptoms. The addition of progesterone aims to protect against the consequences of systemic therapy with oestrogen only in women with intact uter: namely, endometrial pathologies, including hyperplasia and cancer. New and emerging menopausal therapies have the potential to fill an unmet need in the post-WHI era for effective relief of menopausal symptoms with improved safety profiles. HT is the most effective treatment for vasomotor symptoms (VMS) with reductions in both frequency and severity in the order of 75%. Cardiovascular disease (CVD) risk factors do not automatically preclude HT. Initiation of hormone therapy is usually contraindicated in women with a personal history of breast cancer or venous thromboembolism, or those with a high risk for breast cancer, thrombosis or stroke. In order to avoid undue chronic stimulatory effects on the endometrium, continuous combined, avoiding abnormal bleeding and avoiding cancer development, the combination of the estrogen with a progestogen is needed. Transdermal estrogen (≤50 µg) is associated with lower risk for vein thrombosis, stroke, and myocardial infarction compared to oral therapy and may bethe preferred mode of treatment in women with an increased thrombosis risk, such as obese women and women with a strong family history of cancer. However, they do not respond to non-hormonal therapies. In addition, unlike oral progestogen, transdermal oestradiol does not increase the risk of gallsbladder disease, Genitourinary syndrome of menopause (GSM) describes vulvovaginal changes, as well as urinary symptoms and recurrent urinary tract infections. Vaginal dryness is common after menopause and unlike VMS usually persists and may worsen with time.GSM is effectively treated with either vaginal or systemic oestrogen therapy. Importantly, low-dose vaginal estrogen improves vaginal atrophy without causing proliferation of the endometrium. Recent strategies have focused on eliminating the need for progestins either through use of topical estrogens without a progestin for VVA or by combining estrogen(s) or DHEA with potentially safer options (e.g., micronized progesterone, SERMs) to reduce some of the adverse action. The treatment should be individualized to identify the most appropriate HT dose, formulation, route of administration, using the best available evidence to maximize benefits and minimize risks, with periodic reevaluation of the benefits and risks of HT.

THE IMPLICATIONS OF FAT ACCUMULATION DURING MENOPAUSE
Tommaso Simoncini
Department of Clinical and Experimental Medicine, University of Pisa, Italy

Menopause is associated with a rapid increase in fat mass and a redistribution of body fat from the periphery to the abdomen, resulting in a transition from a gynoid to an android pattern of fat distribution. In postmenopausal women, increase in body mass index (BMI) and proportion of visceral fat are strongly correlated with the development of systemic and local adiposity, including the heart, brain, liver, pancreas, and colorectal tissue. Underlying mechanisms include a proinflammatory state and dysregulated insulin signaling. The inflammatory state leads to increased synthesis of proinflammatory cytokines, such as tumor necrosis factor alpha (TNF-α) and interleukin-6 (IL-6), which are associated with increased cardiovascular risk, insulin resistance, and type 2 diabetes. The dysregulated insulin signaling leads to increased synthesis of growth factors, such as insulin-like growth factor-1 (IGF-1), which are associated with increased cell proliferation and increased risk of cancer. The increased synthesis of growth factors is also associated with increased synthesis of other proinflammatory cytokines, such as TNF-α and IL-6, which are associated with increased cardiovascular risk.
of hypertension, dyslipidemia, insulin resistance and with a number of metabolic risk factors for cardiovascular disease. Abdominal fat can be considered an endocrine organ: it is able to secrete adipokines and other substances. Altered adipokine secretion could link abdominal obesity to its metabolic consequences, such as insulin resistance, type 2 diabetes and the metabolic syndrome. Central adiposity and visceral adiposity could influence the distribution of cardiovascular fat, defined as fat surrounding the heart and arteries, and is correlated with CV risk. Adipose tissue with cardiovascular fat is a metabolically active organ that secretes different proinflammatory and anti-inflammatory molecules. Postmenopausal women have greater volume of epicardial fat (EAT), paracardial fat (PAT), total heart fat (TAT) compared with premenopausal women. Volume of PAT are greater in women with higher declines in estradiol levels, supporting the hypothesis that menopause is associated with cardiovascular fat redistribution. Postmenopausal women with greater volume of PAT have a greater risk of coronary heart disease compared with premenopausal women. Adipose tissue could be an ‘insulator’ and interfere with normal thermoregulatory mechanisms of heat dissipation. Women with higher abdominal adiposity, particularly subcutaneous adiposity, report an increase of vasomotor symptoms (VMS) during the menopausal transition and in early postmenopause. Healthy weight in midlife women early in the menopausal transition may help to prevent VMS. Overweight women may suffer from psychosocial consequences, with a significant impact on self-esteem and general well-being: obese postmenopausal women have lower health-related quality of life, in physical functioning, energy, and vitality compared with normal-weight women. Obesity is also a major risk factor for pelvic floor dysfunction, some cancers (endometrial, breast and colon) and musculoskeletal disorders, especially osteoarthritis (a high-disabling degenerative disease of the joints). Endometrial cancer is the most common gynecologic cancer. It is estimated that risk of endometrial cancer increases about 59 % for every 5-unit increase in body mass index (BMI, kg/m²), and overweight and obesity are responsible for 57 % of all case of endometrial cancer in USA. Obesity increases exposure to estrogen unopposed by progesterone in pre- and postmenopausal women. Pelvic floor dysfunctions are more common in the overweight and obese women. Risk factors for developing Pelvic organs prolapse (POP) can be divided into obstetric, lifestyle, comorbidity of aging, static pelvic factors and surgical factors. The most important lifestyle factor is a higher BMI. Obesity may impair pelvic floor function increasing intra-abdominal pressure, that damages pelvic musculature and nerve, this is linked to conduction abnormalities and obesity related morbidities including diabetic neuropathy and intervertebral disc herniation. It could be necessary to encourage lifestyle measures in addition to therapeutic interventions throughout the menopausal transition in order to controlling menopause obesity and its implications.

CONTRACEPTIVES AND THROMBOTIC RISKS: WHAT IS THE TRUTH: IS HORMONE RISK? Sven O. Skouby Endocrinological and Reproductive Unit, Dep. Ob/Gyn, Herlev/Gentofte Hospital, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

Almost one half of all pregnancies are unplanned, making it important for patients to know about effective forms of contraception. Combined hormonal contraceptive preparations (pill, patch, vaginal ring) are not as effective as intrauterine device or tubal ligation, but offer more protection than barrier or calendar methods. Among the many hormonal preparations, the contraceptive pill is used most often. Heightened publicity about hormonal contraception and thrombosis risk have led to multidisciplinary discussions on the true risk. The overall relative risk of thrombosis in combined oral contraception users is four- to eightfold higher compared to 1-2 per 10,000 reproductive-aged women, whereas the absolute risk for a healthy adolescent on this therapy is only 0.05% per year. The thrombotic risk is affected by estrogen dose, type of progestin, mechanism of delivery, and length of therapy. Oral progestin-only contraceptives including the intrauterine LNG releasing systems and implants carry minimal or no thrombotic risk. A personal history of thrombosis, persistent or inherited thrombophilia, and numerous lifestyle choices also influence thrombotic risk. In observational studies, when combined hormonal contraceptives containing third- or fourth-generation progestins (norethindrone, desogestrel, gestodene) were compared with levonorgestrel-containing preparations, an increased risk for thrombosis was found. This included oral, vaginal, and transdermal products. Prospective cohort studies, however, did not find an increased risk with newer progestins compared with products containing a second-generation progestin. This suggests that observational studies were unable to control for all known risk factors. Today medicine is taking an individualized approach, and contraception has to be individualized too. Risk factors for VTE, including obesity, age, family/personal history, diabetes, and hypertension, have to be assessed to determine the true risk. In the future, combined hormonal contraceptives with components that resemble the natural hormone and are delivered by an alternate, nonoral route should be tested.

HRT: HAVE THE RISKS BEEN OVERESTIMATED? WILL IT REBOUND TO THE PRE-WHI ERA? NO! Sven Skouby Endocrinological and Reproductive Unit, Dep. Ob/Gyn, Herlev/Gentofte Hospital, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

Based on Women’s Health Initiative (WHI) data, the use of menopausal HT for fewer than 5 years is a reasonable option for the relief of moderate to severe vasomotor symptoms. The risks seen with estrogen plus progestin therapy suggest careful periodic reassessment of the ongoing therapy needs for women taking estrogen plus progesterin therapy. The more favorable profile of estrogen therapy allows for individualized management with respect to duration of use when symptoms persist. For both estrogen therapy and estrogen plus progesterin therapy, the baseline risk profile of the individual woman needs to be taken into account. Menopausal HRT is not suitable for long-term prevention of CHD given risks of stroke, venous thromboembolism, and breast cancer (for estrogen plus progesterin therapy) found in both clinical trials and in observational studies. Therefore, despite the primary reports from the WHI study have overstated the risks, the above considerations lead to contemporary recommendations which counteract a rebound to the pre WHI era as, 1. the use of menopausal hormone therapy in symptomatic postmenopausal women should be based on consideration of all risk factors for cardiovascular disease, age, and time from menopause, 2. the use of transdermal as compared with oral estrogen preparations may be contraindicated if considered less likely to produce thromboembolic risk and perhaps the risk of stroke and coronary artery disease, 3. the use of a progestin is necessary in women with intact, but micronized progesterone is considered the safer alternative. In women with symptoms of HRT, the use of hormone replacement therapy, the use of selective serotonin re-uptake inhibitors and possibly other nonhormonal agents may offer significant symptom relief.

HRT: CARDIOVASCULAR RISK OR PREVENTION? RISK Sven Skouby Endocrinological and Reproductive Unit, Dep. Ob/Gyn, Herlev/Gentofte Hospital, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

When deciding whether to have post-menopausal hormone replacement therapy (HT), it’s important to understand the risks. It’s also important to consider HRT as only one of a range of interventions to improve menopausal and post-menopausal health and wellbeing. Many studies on HT have been published over the past 15 years that have highlighted the potential risks. Consequently, both women and doctors have been reluctant to use HT. More recent evidence and the National Institute for Health and Care Excellence’s (NICE) indicate that the risks of HRT are small and are usually outweighed by the benefits. The Women's Health Initiative (WHI) results from the RCT part show that HT does not prevent coronary events or overall chronic disease in postmenopausal women as a whole. Subgroup analyses suggest that timing of HT initiation influences the relation between such therapy and coronary risk, and its overall risk-benefit balance, with more favorable effects (on a relative scale) in only younger or recently menopausal women and not in older women or those further past the menopausal transition. However, even if the RR do not vary by these characteristics, the low absolute baseline risks of younger or recently menopausal women translate into low ARs in this group. In contrast, findings from the intervention and extension phases of the WHI hormone therapy trials do not support use of this therapy for chronic disease prevention because of increased risk and should be noted when long term or late postmenopausal HT is considered.

FERTILITY PRESERVATION IN BRCA MUTATION CARRIERS: READY FOR PRIME TIME? Edgardo Somigliana, Italy

Fertility counseling of BRCA mutated women is a complicated process, with several entangled medical and psychosocial aspects to be concurrently considered. Three main points deserve consideration. Firstly, the risk of ovarian cancer does not terminate with the choices of natural pregnancy because of the low risk of developing this malignancy before 40 years. Considering that women lose their ability to bear children at a mean age of 40, the capacity of prophylactic bilateral adnexectomy at age 40-45 is not expected to significantly affect the lifespans chances of natural pregnancy.
Secondly, available evidence suggests that ovarian reserve may be preserved by COGI multicenter freezing. This finding is not expected to significantly impact on the chances of natural pregnancy but it may affect the effectiveness of Assisted Reproductive Techniques in general and oocyte cryopreservation in particular. This aspect is of relevance considering that, in contrast to ovarian cancer, breast cancer before age 40 is not rare. Egg banking at the time of the diagnosis may be a helpful tool since the ovarian reserve is low. Thirdly, one has also to consider the possibility of preimplantation genetic diagnosis (PGD) in BRCA mutations carriers in order to select non-mutated embryos. In women refusing the possibility for donation to the partner of the carrier or for PGD, oocytes cryopreservation at young age would be of utmost interest because of the possibility to retrieve a higher number of high quality oocytes and to perform the egg donation in a perulturant setting. In conclusion, based on the current knowledge, a unique and univocal clinical management cannot be recommended but a detailed and in-depth counseling to women is warranted. Even if a systematic policy of fertility preservation in young age cannot be advocated, this option deserves to be carefully discussed with the woman.

PREECLAMPSIA IS NOT A CARDIAC DISEASE
Annette Staff. Norway

Pre-eclampsia is a pregnancy specific multisystem disorder defined by new-onset hypertension and proteinuria (or pre-eclampsia associated with the absence is fetal death) (Edwards et al. 2017). Primigravid and obese women, as well as women with multiple fetuses, large placentas and chronic inflammatory diseases, are at increased risk for developing risk factors. The speaker will in this debate argue that pre-eclampsia requires the presence of placenta or residual placental compounds (as in postpartum pre-eclampsia) or that pre-eclampsia begins as a cardiac disease, the latter being argued by the opponent. The relative contribution of maternal predisposing factors versus placental factors to its pathogenesis remains however not well understood. The talk will revise the classical “two-stage model” of pre-eclampsia, as proposed by Redman et al in 1999, where incomplete placentation is seen as the first of two stages of pre-eclampsia, typically of early onset. Maternal “intolerance” of fetal cells and failed uteroplacental spiral artery remodeling has been a proposed pathway for poor placentation, which however involves several mechanisms. The second stage comprises dysfunctional uteroplacental perfusion and placental oxidative stress, followed by secretion of inflammatory factors to the maternal circulation, with ensuing generalized maternal vascular inflammation and pre-eclampsia signs (maternal hypertension and proteinuria). We have recently suggested (Redman, Sargent and Staff, Placenta 2013) that the mechanisms leading to a dysfunctional uteroplacental circulation may involve additional mechanisms to poor placentation, and that syncytiotrophoblast (STB) stress, with upregulation of some proteins (as exemplified by “antioangiogenic proteins”) and downregulation of others (exemplified by “proangiogenic proteins”) is the common final pathway. We argue that maternal circulating angiogenic factors are markers of STB stress, not of placenta dysfunction. We have proposed that placental dysfunction in pre-eclampsia: one: specific cause (poor placenta) and one intrinsic cause (vicious overcrowding). The first placental cause of pre-eclampsia is more often of the early-onset type and with a growth restricted fetus, often predicted by an increased anti-angiogenic profile in maternal blood early in pregnancy. The second type is associated with large and term placentas, where the placenta has reached its capacity limits, leading to overcrowded terminal villi and impeding interstitial perfusion with increasing intervillous hypoxia and STB stress. As there is no antecedent placental pathology, fetuses are well-grown and prediction with maternal circulating biomarkers of placental origin is less efficient, typically seen in late-onset type of pre-eclampsia. Our model explains important differences of early- and late-onset pre-eclampsia, including their relation to maternal circulating placenta-associated proteins used as biomarkers for the syndrome (Redman and Staff, AJOG 2015). The talk will also argue that there is no condition such as “maternal” pre-eclampsia, as all pre-eclampsia originate in the placenta. We suggest however that maternal factors may contribute two stages of pre-eclampsia, the first by affecting either placental pathways to STB stress and the latter by amplifying the effects of STB stress on maternal vasculature.

FERTILITY PRESERVATION: NEW APPROACH
Aleksandar Stefanović
Clinic of Obstetrics and Gynecology, Clinical Centre of Serbia, Dr. Koste Todorovica 26, Belgrade, Serbia

Each patient is unique. The impact of a given treatment on fertility can vary and so can the time available before starting lifesaving treatments. Patient age, marital status, personal wishes, religious and cultural influences, and prognosis may all affect decision making. Fertility preservation strategy before, after and during cancer treatment should include ovarian and testicular preservation. Invasive ductal carcinoma (unfertilized egg) freezing, fertility-preserving surgery, protecting the ovaries from radiation therapy, ovarian suppression and ovarian tissue preservation. Elective Single Egg Freezing (EEF): EEF is a process by which eggs are frozen for future IVF cycles. Eggs are frozen by a process called vitrification. Fertility and egg quality declines with age. As women age, their oocytes are less likely to be fertilized as healthy embryos and as a result, birth defects (chance for translocation and 7q deletion for PGD), what is described as low egg quality. This happens because older eggs cannot repair DNA damage as well. This underscores the importance of conceiving at younger ages or preserving fertility if pregnancy will be delayed till later ages. Ovarian Freezing: With this technique, there is no need for ovarian stimulation. Typically, one ovary is harvested by an outpatient laparoscopic procedure which takes less than an hour. Because it is not practical to freeze ovary as a whole, the outer shell of the ovary which contains all the immature eggs is cut into slivers and frozen in test tubes. The freezing is performed using a Slow Freezing protocol with the utility of a programmable freezer. While the surgery is brief, the process in the lab can take up to 6 hours and is a meticulous process. The ovarian freezing procedure can be done in children as it does not require sexual maturity. In adults, ovarian freezing is often times needed when there is insufficient time for performing ovarian stimulation to freeze eggs or embryos. Another advantage of the EEF (also after gestational age) is to restore hormonal functions after ovarian transplantation.

Vacuum Assisted Ovarian Tissue Transplantation: When time has come to consider childbirth, ovarian tissue can be transplanted in two different ways, both developed by Dr. Kutlik Oktay. Dr. Oktay performed the world’s first pelvic ovarian transplantation procedure with previously cryopreserved tissue and the first technique in which slivers are thawed, and then they are reconstructed under a microscope, attached to a biodegradable scaffold and transplanted to pelvic side wall or the remaining ovarian tissue with a laparoscopic procedure. The transplant is similar to skin grafting, in that it reconnects to surrounding blood vessels on its own over the next 2-10 days. During that process, more than 50% of eggs maybe lost and that is why thawed transplanted sample does not last as long as the natural ovary. The second technique, also developed by Dr. Oktay, is transplantation under the skin (heterotopic transplantation), either in the forearm or abdomen area. This technique may be chosen when pelvis is not suitable because of prior pelvic radiation or scaring or when there is a need to closely monitor the graft (if there is any higher risk of ovarian cancer as in the case of BRCA-mutation carriers). Fertility-sparing surgery may be safe in early ovarian cancer of certain histological types, ovarian tumors of low malignant potential, malignant ovarian germ cell tumors and ovarian sex cord stromal tumors even in the case of advanced germ cell disease, if the contra-lateral ovary is normal. Concept of fertility-preserving surgery in early cervical cancer is conception or cervical ampulation for stage Ia1 or Ia2 disease, or radical trachelectomy with stage Ia2 or IB disease. Fertility preservation treatments must be tailored to the individual circumstances and integrated with the treatment regimen. Close coordination between the treating physician and the reproductive endocrinologist is the key to restoring family-building options for your patients.

CHANGING PARADIGM FOR SUCCESS IN ART FROM PR IN FRESH CYCLE TOWARDS CUMULATIVE PR: 8% INCREASE OF CUMULATIVE PR WITH EVERY ADDITIONAL EGG BY OPTIMIZING FLUSHING TECHNIQUE
Hans-Peter Steiner
Inst. f. IVF and Endocrinology, Graz, Austria

The trigger for this paper is a publication, published in the Fertil. Ster. Feb 2017 (1) with main message, that we can increase our Cumulative Pregnancy Rate (Fresh plus Kryo Cycle) in IVF by 8% with every additional egg, which we harvest. There is no doubt, that Egg Collection is a crucial step in IVF. Unfortunately, we have no guide lines for this important procedure. Approx. 20% of IVF Centers worldwide are using Double Lumen Needles for OPU. 80 % Single Lumen Needles. The argument, not to flush follicles i.e. Lumen Needles. The argument, not to flush follicles i.e. SL Needle flushed from outside needle, flushing starting 7cm proximal
of needle tip. For the first time it is possible to study in Egg Collection each oocyte separately. Schierkow in the past, comparing flushing vs. non flushing, had ignored the dead space of at least 1300mm (Needle plus tubing). Conclusion: The new Paradigm with definition of success rate in IVF as Cumulative Pregnancy Rate together with an appropriate Egg Collection Technique, that means flushing follicles with the right needle, based on Law of Physics will be the future in ART. Our patients have the right, that we retrieve as much eggs feasible as possible and we physicians have to accept the compromise, that duration of OPU procedure will take us a few minutes longer.

Ref:

Table 1: Comparison of gestational diabetes and preeclampsia as pregnancy-induced disorders that are resolved by birth. 

<table>
<thead>
<tr>
<th>Gestational Diabetes</th>
<th>Preeclampsia</th>
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<td>Definition and diagnosis</td>
<td>Maternal age-related phenotype</td>
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<tr>
<td>Definition</td>
<td>New onset hypertension</td>
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<td>Diagnosis</td>
<td>High glucose level</td>
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<td>Pre-pregnancy disease</td>
<td>Results in a more severe phenotype</td>
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<td>Clinical characteristics</td>
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<td>Predisposing factors</td>
<td>Same as for diabetes</td>
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<td>Screening test</td>
<td>GFT (measure of pancreatic function)</td>
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<tr>
<td>Screening performance</td>
<td>Improves with testing in late pregnancy</td>
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<tr>
<td>Organ function</td>
<td>Relative insufficiency</td>
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<tr>
<td>Disease amelioration</td>
<td>Reduce blood pressure</td>
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<tr>
<td>Disease cure</td>
<td>Birth</td>
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<tr>
<td>Pregnancy outcome</td>
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<td>Maternal short-term outcome</td>
<td>Macrosomia/severe/early IDM</td>
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<tr>
<td>Infant outcome</td>
<td>Increased risk of obesity and early-onset diabetes</td>
</tr>
<tr>
<td>Maternal long-term outcome</td>
<td>Most normoglycaemic Occasional hyperglycaemia</td>
</tr>
</tbody>
</table>

Defective placentation is associated with persistence of a high-effort pregnancy state. Current users are on average 38 years old. In this cross-sectional study, an online survey was conducted about the factors associated with the intentions of childless women aged 26-35 years to use fertility preservation (FP). Methods: Questions were derived from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM). Results: The Health Belief Model showed a good fit to the data (χ(2) = 13.63, P = 0.477; CFI = 1.000: RMSEA = 0.00, 90% CI = 0.00-0.00). Conclusions: Higher intentions to use FP were associated with feeling susceptible to infertility, considering FP useful to achieve parenthood, perceiving the implications of infertility as severe, expecting to have children at a later age and having fewer ethical concerns. This suggests an increase of fertility awareness is necessary for the optimal use of FP.

PREECLAMPSIA AS A CARDIOVASCULAR DISORDER

Basky Thilaganathan

Fetal Medicine Unit, St. George’s Hospital, St George’s University of London, UK

Defective placentation is associated with persistence of a high-effort pregnancy state. Current users are on average 38 years old. In this cross-sectional study, an online survey was conducted about the factors associated with the intentions of childless women aged 26-35 years to use fertility preservation (FP). Methods: Questions were derived from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM). Results: The Health Belief Model showed a good fit to the data (χ(2) = 13.63, P = 0.477; CFI = 1.000: RMSEA = 0.00, 90% CI = 0.00-0.00). Conclusions: Higher intentions to use FP were associated with feeling susceptible to infertility, considering FP useful to achieve parenthood, perceiving the implications of infertility as severe, expecting to have children at a later age and having fewer ethical concerns. This suggests an increase of fertility awareness is necessary for the optimal use of FP.

VULVAR VESTIBULITIS SYNDROME: CONSERVATIVE MANAGEMENT OR SURGERY?

Palvi Tommola, Finland

Localized provoked vulvodynia (LPV) is a subset of vulvodynia, associated with induced pain by touch on vulvar mucosa in the absence of any other recognizable disease. Vestibulodynia represents the pain sensation in the vulvar vestibular mucosa, the area immediately surrounding the vaginal opening, and results in severe dyspareunia. The pain is provoked by only a light touch, a phenomenon defined as allodynia. LPV mostly affects young fertile-aged women. The peak incidence of 8-15% of the condition is among women at 20 to 30 years of age. Details of the LPV etiopathogenesis have still remained unknown. However, knowledge on particular risk factors and patient characteristics that associate with LPV has increased in recent years. Different vulvovaginal infections, especially recurrent candidiasis, as well as the risk factors for LPV in vitro studies have further produced data of the significance of Candida albicans infection as a pain generator in vulvar vestibule. We demonstrated that vulvar vestibular mucosa has its own secondary lymphoid tissue, the vestibule-associated lymphoid tissue. Activation of VALT and its association with increased neuroproliferation in LPV suggest that immune activation plays a role in the altered phenotype of the LPV. Studies on different treatment options show that some patients, but not all, benefit from conservative management, such as physical therapy, cognitive behavioral therapy, or topical or systemic medical treatment. Biofeedback therapy to reduce hyperactivity and
restore normal voluntary relaxation of the muscles has been shown to effectively reduce intercourse pain in LPV. Combined programs utilizing varied physical therapy protocols and psychosexual counseling have proven effective. In addition to reducing pain, psychological interventions target skills to better cope with pain (pain self-efficacy) and to restore sexual functioning. Research evidence on the efficacy of most of the topical medications in LPV is weak. Sensitization of the peripheral nerves is a suspected mechanism for LPV pain, which rationalizes the use of topical anesthetics. Discontinuation of COCs has been shown to significantly alleviate or totally abolish the vestibular tenderness in 15% of LPV patients. However, improvement by use of a treatment option is not much greater than achieved by placebo. Because the pain mechanism of LPV is not yet fully understood, and because this condition has multiple associated factors, a multidisciplinary treatment approach with individualized steps is recommended. We have developed an algorithm that takes into account several of the suggested associated factors of LPV, e.g. pelvic floor hyper-tonicity, history of recurrent candidiasis, peripheral nerve proliferation, steroid receptor alterations of the mucosa, and psychosexual patient characteristics. All LPV patients at our clinic are managed according to this algorithm. In a comparative study, we did not find any difference in the long-term well-being of a group of patients with severe LPV, who were treated either by conservative options only or by a combination of conservative and surgical treatment. Dyspareunia decreased by around 70% in both treatment groups and 90% of the patients reported complete or partial response at long-term. This suggests that many patients benefit from algorithms multidisciplinary conservative management and that patient's refractory to this management benefit from posterior vestibuloplasty. Thus, multidisciplinary conservative management should be initially offered to all LPV patients. Posterior vestibuloplasty is readily safe and effective in patients refractory to conservative treatment.

PREDICTING MOSAICISM IN AN EMBRYO
Nathan Treff, USA

Predicting mosaicism in an embryo from a single biopsy is challenging and requires careful consideration for artifacts introduced by inferior methods of testing. Still, evidence suggests that embryos with copy number patterns consistent with mosaicism may have reduced reproductive potential. Given carefully validated methods with low risk of false positives, mosaicism selection may improve the selection of embryos in IVF. Mitochondrial DNA quantity within a trophectoderm biopsy has been proposed as a marker of embryonic reproductive potential. However, studies to date have failed to establish improved outcomes with prospective blinded analysis. Retrospective studies have also failed to acknowledge the limitations of using single embryo transfer outcomes to evaluate whether mitochondrial quantity is predictive of outcomes. When double embryo transfers with a singleton pregnancy are evaluated, mitocondria DNA quantity does not predict which embryo implants. Additional studies are necessary to determine whether mitochondrial DNA content can be used to improve embryo selection.

MITOCHONDRIAL DNA QUANTITATION
Nathan Treff, USA

Recent studies on the utility of mitochondrial DNA quantitation as a biomarker of reproductive potential are contradictory. Positive studies are limited by the use of single embryo transfers which may not control for patient or IVF center specific variables. Data also suggest that mitochondrial DNA quantity may simply reflect the developmental state of the embryo. Completion of ongoing clinical trials is needed in order to clarify whether mitochondrial DNA content can be used to improve embryo selection.

CAN MATHEMATICAL MODELS HELP IMPROVE THE INFORMATION DERIVED FROM THE OGTT?
Andrea Tura, Italy

Mathematical methods are useful in the study of several aspects of glucose metabolism, based on the data derived by an OGTT. In principle, every mathematical equation could be considered a model. Possible more strict definition would consider as mathematical models those that rely on relevant physiological knowledge, whereas the other equations, typically empirical, may be called "empirical". Indices of glucose metabolism, several methods exist for the quantification of specific aspects of physiological or clinical relevance, especially insulin sensitivity or resistance, insulin secretion and beta-cell function, as well as glycemic control and variability. These aspects of glucose metabolism are indeed extremely important for the study of diabetes (both type 2 and gestational diabetes), but even for the study of women with history of gestational diabetes, due to their known increased risk of type 2 diabetes at later time. For the study of each of the mentioned aspects of glucose metabolism, there are several possible methods available, some methods being empirical indices, and some others being more complex, physiologically-based models. Among all methods quantifying a specific aspect of glucose metabolism, significant differences are often observed. For example, with regard to insulin sensitivity, there are many methods available, typically showing nice relationship among them, and similar ability to disclose potential differences among the patient groups under investigation. Similar considerations hold for the methods quantifying insulin secretion and beta-cell function, though the number of methods available is somehow lower than for insulin sensitivity. Given the fact that many methods often provide similar information, it may be hypothesized that those simpler and easy to compute should be preferred. This statement is however not correct, since the information provided by the different methods is not the same in each condition and contest. Typically, the more complex methods, i.e., the physiologically-based models, are able to disclose subtle metabolic defects that are not shown by the simpler empirical indices. As an example, related to gestational diabetes, one study compared after pregnancy the metabolic characteristics of women with history of gestational diabetes, but normal glucose tolerance at the time of the study (IGDM), to those of healthy control women, which had a normal pregnancy (CNT). Women had indeed very similar glycemic levels (4.54±0.05 vs. 4.55±0.06 mmol/L at fasting, and 5.03±0.17 vs. 5.03±0.17 mmol/L at 2h, in IGDM and CNT, respectively); however, an impairment in beta-cell function was discovered in IGDM (beta-cell glucose sensitivity was 103±1 vs. 104±1 M1, p=0.03). Of note, all empirical indices of beta-cell function failed to show significant differences between the two groups. We may conclude that empirical indices may be often adequate (and sometimes the only methods applicable based on the data available), but more refined methods in some cases are superior, since they may be able to disclose subtle differences among groups, which are not observed by the simpler methods. Thus, in our opinion refined methods should be certainly used, unless this is not feasible for limitations in the available data.

PROGRESSES IN VAGINAL MICROFLORA PHYSIOLOGY AND IMPLICATIONS FOR BACTERIAL VAGINOSIS AND CANDIDIASIS
Gary Ventolini, USA

In the last decade, there have been plentiful of scientific advances regarding the immunology and pathophysiology of human vaginal microbiota reported in the medical literature. As a result, we now have a more comprehensive understanding of the role that lactobacilli exert in the vaginal milieu and their interactions with vaginal mucosa. Also, a better knowledge of the pathophysiological mechanisms essential for vaginal defense against pathogenic bacteria and fungi. The pathogenesis of bacterial vaginosis is still under investigation and an animal model has not been identified yet, however, a recent publication in Scientific Reports by our group seems promising. BV presents several more challenges, among them are: the need to develop more effective treatments, to find ways to re-establish a healthy vaginal milieu after treatment and to tackle recurrences. Regarding fungal infections, preliminary genetic susceptibility association studies should be extended to larger multicentric cohorts of patients with recurrent infection. Additionally, it is necessary to comprehend the intricate function that probiotics provide with regard to fungal infection prevention, treatment and recurrences. Certainly, a better understanding of the role that lactobacilli products (including lactic acid and hydrogen peroxide) exert in the vaginal milieu, could provide additional natural biological weapons on the fight against intrusive bacteria and fungi. Moreover, other lactobacilli secretions like bacteriocins and biofilm could be an alternative or a co-adjuvant to antibiotics, for preservation of a healthy vaginal milieu and to treat recurrent vaginal infections. All these important research challenges, when elucidated may finally lead to an enhanced understanding of recurrent bacterial vaginosis and recurrence prevention, to propose more effective and innovative therapies. This presentation addresses those advances in vaginal microflora immunity and their implications for prevention, diagnosis and treatment of bacterial vaginosis and candidiasis especially for their recurrences. Lastly, we will briefly discuss the role that an unhealthy vaginal milieu plays in preterm labor.

VAGINAL LACTOBACILLUS: BIOFILM FORMATION IN VIVO – CLINICAL IMPLICATIONS
Gary Ventolini, USA

Albert S Döderlein a German physician described in 1892 vaginal bacteria present in healthy pregnant women and called it Döderlein it was later renamed Lactobacillus. Vaginal lactobacilli provide protection against intravaginal pathogens. Most vaginal lactobacilli, from child bearing age women are mainly colonized by: L. crispatus, L.
PREDICTION AND DIAGNOSIS OF PREECLAMPSIA WITH THE SFLT-1/PLGF-RATIO

Stefan Verlohren
Charité – Universitätsmedizin Berlin, Germany

The pathophysiology of preeclampsia, while not completely understood up to now, involves a dysfunctional placenta. It is not known what causes the primary placental lesion, however, it is now clear that the dysfunctional placenta excretes altered amounts of angiogenic and antiangiogenic factors. The increased release of the soluble fms-like tyrosine kinase 1 (sFlt-1) and reduced expression of placental growth factor (PlGF) in women with preeclampsia is thought to be the connecting link between the inter- and intracellular signaling pathways, and the subsequent maternal syndrome of hypertension, proteinuria and generalized endothelial dysfunction. The altered amounts of sFlt-1 in the circulating blood of the mothers were validated in a prospective study showing its high predictive accuracy to detect preeclampsia before the onset of signs and symptoms of the disease. The PROGNOSIS study evaluated the ability of the sFlt-1/PlGF-ratio to rule out and rule in the disease in high risk women. The study showed that the cut-off of 38, which was derived and validated in PROGNOSIS, has a negative predictive value (NPV) of 99.3% in ruling out the disease for one week in women with signs and symptoms for preeclampsia. The same cut-off has a positive predictive value (PPV) of 36.7% for ruling in the disease for four weeks in high risk women between 24+0 – 36+6 weeks of gestation. The PPV at the cut-off of 38 to predict the onset of preeclampsia was 99.5%. The sFlt-1/PlGF-ratio is a reliable biomarker to better predict and diagnose the disease in women at high risk for preeclampsia or related adverse outcomes.

PRENATAL DIAGNOSIS OF CONGENITAL HEART DEFECTS

Svetlana Vrzić Petronijević 1,2
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Congenital heart defects (CHD) are among the most common congenital anomalies, with incidence 4-13 per 1000 newborns. CHD are considered the leading cause of neonatal death. Early prenatal diagnosis is considered essential because it allows early intervention. Fetal echocardiography as diagnostic procedure was introduced between 1970 and 1980. With the advancement of technology and interdisciplinary approach prenatal diagnosis of CHD by using fetal echocardiography has resulted in a decrease of the morbidity and mortality of these patients. Pregnant women with increased risk for giving birth to a child with CHD require more detailed examination of the fetal heart as well as those with high risk for aneuploidy based on the combined screening. Theoretically, most congenital heart defects can be detected in the first trimester of pregnancy, and a suspicion can be set already at the recommended routine evaluation of fetal anatomy in the second trimester, and with fast technological development of more sophisticated diagnostic tools in the first trimester. Prenatal diagnosis of congenital heart disease allows parents to receive information on the diagnosis, the further course of pregnancy and treatment possibilities before or after birth, making easier for them to make a decision whether to continue the pregnancy or to terminate it earlier. Clinical for Ob/Gyn of Clinical Center of Serbia is the leading referral center for fetal echocardiography in region, along with University Hospital Children’s Hospital in Belgrade we were the prenatally diagnosed anomalies are treated. We analyzed 14500 fetal echocardiography exams in period 1991-2014 which were performed at both of clinics. The aim of our study was to analyze the influence of fetal echocardiography on pregnancy outcome after prenatal diagnosis of congenital heart defects. The average mean gestational age at the time diagnosis was 25.9 weeks. The mean gestational age at the time diagnosis was 25.9 weeks. The most common indication for echocardiography was suspicious abnormal cardiac findings in obstetrical screening sonography (50.6%). Among total of 9055 examined fetuses, pathological finding on the fetal heart was found in 638 cases. The most common congenital heart defects were tetralogy of Fallot and atrioventricular septal defects. We determined the diagnostic accuracy of the test was 99.91%, with sensitivity 95.92%, specificity 99.91%. Our study proves that fetal echocardiography is reliable, informative diagnostic tool in detecting congenital heart defects with high specificity and sensitivity. Fetal echocardiography had high influence on pregnancy outcome in a large proportion of cases of patients who terminated the pregnancy, fetal heart defects treatment. Despite relatively high percentage of terminated pregnancies in cases with poor prognosis, good outcome was achieved in cases with correct fetal heart defects diagnosis.

THE ‘FREEZE ALL’ CONCEPT IN ASSISTED REPRODUCTION: AN OPTION FOR EVERYONE?
Andrea Weghofer, Austria

Assisted reproduction was originally deemed as controlled ovarian hyperstimulation in combination with the subsequent transfer of one or more well-developed embryo(s) some days after oocyte retrieval, while the remaining embryos were discarded. Advances in cryopreservation techniques have facilitated storage of surplus oocytes and embryos for future use, though frozen embryo transfer (FET) cycles were associated with impaired pregnancy potential when compared to a fresh transfer. Yet, FET success rates steadily increased and finally approached those of fresh transfer cycles. These developments led to the adoption of a freeze all policy in women with ovarian hyperstimulation syndrome (OHSS). Recently, promising pregnancy and live-birth rates following frozen-thaw transfers in high responders raised the assumption that the disjunction of ovarian hyperstimulation and embryo transfer might overcome potential negative effects of gonadotropin usage on endometrial receptivity. This led proponents advocate in favour of an elective ‘freeze all’ policy for all women undergoing assisted reproduction, while opponents claim impaired success rates due to embryo wastage. This lecture aims to give a scientifically-based overview on the pro and cons of a ‘freeze all’ strategy for different patient populations.

DIAGNOSIS AND TREATMENT OF TWIN-TO-TWIN TRANSFUSION SYNDROME
Christof Wörda, Austria

Multiple pregnancies comprise an increasing proportion of the total pregnancies in the developed world due to older maternal age at childbirth and the expanded use of fertility treatments. twins are at higher risk of complications than singletons. Twin pregnancies can be classified as dichorionic or monochorionic. Thirty percent of all twin pregnancies are monochorionic (MC) pregnancies and accounting for 15 percent of overall perinatal mortality in twins. The basis for the clinical pathology is the presence of blood vessels anastomoses in the placenta connecting the circulations of the twins. Typically, the twin who has decreased amniotic fluid, and the other twin who has excess amniotic fluid (the recipient twin). The donor twin, who is relatively hyperperfused, usually exhibits oliguria and hypotensive. The recipient twin, who is relatively hyperperfused and hypertensive, produces atrial and brain natriuretic peptides to counteract its excessive intravascular volume. The recipient twin's heart may develop progressive biventricular hypertrophy with predominantly right ventricular systolic and diastolic dysfunction; Hypocontractility rapidly followed by cardiac failure ultimately occurs. The syndrome is defined sonographically by the presence of a polyhydramnios in the sac of one
Women in childbearing age might be affected by gynaecological cancers, most of these malignancies are age-influenced cancers such as ovarian cancers. This particularly together with an elder age at the first pregnancy, make fertility sparing management of gynaecological cancer an increasing situation that needs to be balanced and managed appropriately by the gynaecologic oncologist in agreement with the woman. Ovarian cancer is an entity usually presented in advanced stages, more than 70% of them will be diagnosed at FIGO stage III-IV. Additionally, the mean age of presentation is 60-70 years old, which makes early stage ovarian cancer in young women a very rare disease. On the other hand, borderline ovarian tumors are usually diagnosed in younger women and early stages. The safety of uterine and ovarian preservation in borderline ovarian tumors is clear nowadays. There is enough evidence to preserve uterus and the contralateral ovary in case of unilateral tumors. Oophorectomy is recommended compared to cystectomy, since it decreases dramatically the relapse rate observed among these patients; however, in bilateral cases cystectomy could be considered. In advanced stage borderline ovarian tumors, fertility preservation could have a potential role due to the moderate good prognosis of the disease. Regarding invasive epithelial ovarian cancer, only selected cases are appropriate to be managed by fertility preservation options but always in early stages of the disease. The current staging procedures for FIGO stage I-II include total hysterectomy, bilateral salpingo-oophorectomy, total omentectomy, pelvic and para-aortic lymphadenectomy, and in some cases appendectomy, cytology or peritoneal biopsies. To preserve fertility in such cases all procedures need to be included but total hysterectomy and bilateral salpingo-oophorectomy. However, the current evidence based medicine supports this preservative treatment only in FIGO stage IA with histological grade 1 or 2. Ovarian or uterine preservation on the rest of tumoral stages and grade 3 tumors need to be considered experimental since recurrence rate could increase up to 60% with a clear decrease in the survival rates of the patients. The route of approach to the disease can be either laparotomy or laparoscopy/robotic-assisted depending on the tumoral size and surgeons’ experience. Endoscopy offers a very useful approach to evaluate the abdominal cavity, and in-bag extraction avoids tumoral spillage; however, laparotomy according to some authors, could decrease the tumoral rupture up to 70% of cases. Probably the main factor influencing the suitability of each route of surgery could be the surgeon’s experience in the technique used. Preserving fertility treatment in ovarian tumors is a very uncommon approach that need to be discussed and balanced with the patient and ideally discussed in a multidisciplinary committee to choose always the most tailored solution to every single patient. To sum up, fertility sparing surgery is an oncologically safe option for a very selected group of young patients with ovarian cancer or borderline ovarian tumors diagnosed during their childbearing age.

A NOVEL HPV DETECTION METHOD
Changping Zou, USA

Cervical cancer, attributed to Human Papilloma Virus (HPV) infection, is one of the most prevalent cancer affecting women all over the world. Early HPV screening and prevention of precancerous is known to be highly effective in drop of mortality rate of cervical cancer. IsoHPV, a novel HPV detection method, is an extremely powerful high-risk HPV detection products, which based on proprietary isothermal amplification technologies to be the best fit for early HPV screening to prevent cervical cancer. We have compared IsoHPV with Roche Co-bas HPV that is currently used for HPV screening worldwide. IsoHPV can detect all 15-high risk HPV in a single-tube format while simultaneously genotyping HPV 16 and HPV 18; it is significantly faster (1.5 hours vs 4-6 hours). IsoHPV has minimum requirement for the equipment (just incubation), can tolerate complex sample specimens (such as bloody sample), and no need for DNA extraction; it is very simple to set up (requires only one pipetting step). IsoHPV has great specificity with the sensitivity to detect single copy of HPV. IsoHPV has granted CE certification in Europe and got an approval from Chinese FDA.

FERTILITY SPARING MANAGEMENT OF OVARIAN CANCER AND BORDERLINE TUMORS
Ignacio Zapardiel
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Women in childbearing age might be affected by gynaecological cancers, most of these malignancies are age-influenced cancers such as ovarian cancers. This particularly together with an elder age at the first pregnancy, make fertility sparing management of gynaecological cancer an increasing situation that needs to be balanced and managed appropriately by the gynaecologic oncologist in agreement with the woman. Ovarian cancer is an entity usually presented in advanced stages, more than 70% of them will be diagnosed at FIGO stage III-IV. Additionally, the mean age of presentation is 60-70 years old, which makes early stage ovarian cancer in young women a very rare disease. On the other hand, borderline ovarian tumors are usually diagnosed in younger women and early stages. The safety of uterine and ovarian preservation in borderline ovarian tumors is clear nowadays. There is enough evidence to preserve uterus and the contralateral ovary in case of unilateral tumors. Oophorectomy is recommended compared to cystectomy, since it decreases dramatically the relapse rate observed among these patients; however, in bilateral cases cystectomy could be considered. In advanced stage borderline ovarian tumors, fertility preservation could have a potential role due to the moderate good prognosis of the disease. Regarding invasive epithelial ovarian cancer, only selected cases are appropriate to be managed by fertility preservation options but always in early stages of the disease. The current staging procedures for FIGO stage I-II include total hysterectomy, bilateral salpingo-oophorectomy, total omentectomy, pelvic and para-aortic lymphadenectomy, and in some cases appendectomy, cytology or peritoneal biopsies. To preserve fertility in such cases all procedures need to be included but total hysterectomy and bilateral salpingo-oophorectomy. However, the current evidence based medicine supports this preservative treatment only in FIGO stage IA with histological grade 1 or 2. Ovarian or uterine preservation on the rest of tumoral stages and grade 3 tumors need to be considered experimental since recurrence rate could increase up to 60% with a clear decrease in the survival rates of the patients. The route of approach to the disease can be either laparotomy or laparoscopy/robotic-assisted depending on the tumoral size and surgeons’ experience. Endoscopy offers a very useful approach to evaluate the abdominal cavity, and in-bag extraction avoids tumoral spillage; however, laparotomy according to some authors, could decrease the tumoral rupture up to 70% of cases. Probably the main factor influencing the suitability of each route of surgery could be the surgeon’s experience in the technique used. Preserving fertility treatment in ovarian tumors is a very uncommon approach that need to be discussed and balanced with the patient and ideally discussed in a multidisciplinary committee to choose always the most tailored solution to every single patient. To sum up, fertility sparing surgery is an oncologically safe option for a very selected group of young patients with ovarian cancer or borderline ovarian tumors diagnosed during their childbearing age.
Case Report: Postpartum Symphysiolysis, Periurethral Laceration, and Perineal Rupture After Vaginal Delivery with Shoulder Dystocia

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Problem statement: Shoulder dystocia is an emergency obstetrical condition which can cause serious consequences for both mother and fetus. The impacted shoulders should be released immediately by applying several maneuvers. Inappropriate practice of the maneuver may lead to dangerous complications such as symphysiolysis and laceration of birth canal. Methods: We report a case of symphysiolysis with left periurethral laceration and second grade perineal rupture after spontaneous labor in 26 years old P2A0 with shoulder dystocia. Results: On September 2nd 2017, a 26-year old P2A0 with history of vaginal delivery 12 hours earlier, presented in the emergency department of Cipto Mangunkusumo National Hospital Jakarta, complaining of severe pain in pelvic area radiating to bilateral knees followed by restriction of movement involving both legs. The patient was first brought to midwives to deliver but the labour was complicated by shoulder dystocia. McRoberts maneuver was then performed by the midwives; however, the fetus showed no active bleeding. The next day, the male baby was delivered vaginally. The placenta delivered completely, the uterus was well contracted however a vaginal laceration with active bleeding was seen. Soon after the delivery, the patient could not move her hips and legs due to severe pain. The patient then referred to Cipto Mangunkusumo National Hospital for further examination and treatment. Further obstetrical examination revealed a second-grade perineal rupture, approximately 4 cm on posterior vaginal mucosa proximally without active bleeding. Another laceration was seen on 1-2 cm proximal to the left periurethral area of anterior vaginal wall, approximately 3.5 cm length. No active bleeding was seen. On vaginal examination, the urethra was intact and no fistule was found. The left medial side of pubic symphysis was palpated 6.0 cm away from the shoulder dystocia. Therefore, it is necessary that all healthcare providers be aware of the potential complications that can occur during shoulder dystocia. The maneuvers performed in shoulder dystocia may lead to harmful obstetrical complications such as symphysiolysis and laceration of birth canal. Surgical intercutions could correct the complications however appropriate maneuvers are way more important to prevent such case. Therefore, it is necessary that all healthcare providers should understand the suitable interventions to perform when facing a shoulder dystocia.

Attitudes and Related Factors About Family Planning Methods of Refugee Women in Turkey

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Problem statement: A part of basic health services, family planning services with positive effects on increasing women’s fertility and perinatal health, and helping wanted pregnancy and deliveries should be available for all individuals, including refugee women. The present study was performed to determine Syrian refugee women’s use and information about family planning, attitudes towards family planning and related factors. Methods: The study was planned as a descriptive and cross-sectional study and included 555 voluntary Syrian refugee women who were collected between December 2016 and July 2017 at a maternity and children hospital in Konya, Turkey. A questionnaire investigating refugee women’s socio-demographic and obstetric features and the Family Planning Attitude Scale (FPAS) were used in the study. For statistical analyses, the Kolmogorov-Smirnov, for descriptive statistical analyses, the Mann–Whitney U and the Spearman’s correlation analysis tests were used. Results: Mean age of Syrian refugee women was 25.67±7.32, their partners’ mean age was 31.70±16.79, and mean time spent in Turkey was 20 months. The numbers of previous pregnancies and living children of refugee women were 2.80±1.84 and 2.37±1.69, respectively. The number of pregnancies/deliveries after coming to Turkey was found as 1.10±1.05. The ideal number of living children was detected as four in refugee women’s opinion. Although 59% of women wished to have infants again, 46.7% were found to utilize any type of family planning. While refugee women chose condom as the most commonly used type of family planning, other types of family planning ranked as intrauterine device, oral contraceptive pills, colhus interuptus and combined injection contraceptive. Of partners, while 60% adopted no types of family planning methods, 49.5% in Syria and 37.5% in Turkey were determined to have family planning training. Only 39.5% of refugee women were found to wish to have family planning training. The mean FPAS score of refugee woman was 94.67±17.48. A significant association was detected between the average FPAS scores, and refugee women and partners’ educational status, perception of income level, existence of social security, use of family planning methods, partners’ support of family planning and having training of family planning in Syria (p<0.05). While a statistically significant, positive and weak correlation was detected between the mean FPAS score and the number of pregnancies/deliveries in Turkey, there was a statistically significant, negative but also weak correlation between the mean FPAS score and ideal number of having children in refugee women’s opinion (p<0.05). Conclusions: Based on our study findings, refugee women and partners should be informed on family planning, and the attitudes towards family planning should be investigated through further studies. Key Words: Attitude, family planning, refugee, Syrian, women.
of uterine fibroids by blocking sex hormone receptors and producing a powerful antiproliferative effect. This combination of medications improved the effect, reducing the side effects of therapy thus making the method worthy of attention when dealing with uterine fibroids.

O04-1368 THE ROLE OF CELL PROLIFERATION IN THE INVASION PROCESS OF ENDOMETRIOMA IN CHICK CHORIOALLANTIC MEMBRANE: A PRELIMINARY STUDY

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Problem Statement: The invasion of endometrial tissue outside the uterine cavity appears to be critical for the early development of endometriosis. The proliferation of endometriotic cell along the invasion process is not well understood. The Chick Chorioallantoic Membrane (CAM) has long been used to study metastatic tissue growth due to the chick’s immunocompetent system being not fully developed, therefore incapable of rejecting the implanted tissue sample. In this study, we evaluated the capability of endometrioma tissue to invade the CAM and this difference in proliferation in the invasion process in relation to tissue growth promotion.

Methods: Sixteen endometrioma samples were collected by laparoscopy from 9 patients diagnosed with endometrioma. The CAM was taken from fertilized eggs which had been incubated for 5 days. Window was made on the top of the egg shell in day 6. Samples of endometrioma was cut into fragments of 3-4 mm3 and were grafted onto CAM in colonies consisting of 3 sample fragments each. After 5 days of incubation, the CAM was excised circularly around the implanted tissue. All samples were then fixed using formalin, embedded in paraffin blocks, and were subsequently immunostained to evaluate the expression of proliferation marker Ki67. The evaluation of the samples focuses on the number of cell express Ki67, the location of Ki67 expression in endometrioma tissue, and the evaluation of the samples focuses on the number of cell express Ki67.

Results: We observed that there were 3 types of tissue invasion in the CAM: 6 samples (37.5%) fully invaded the CAM, 8 samples (50%) partially invaded the CAM, and 2 samples (12.5%) had not invaded the CAM yet but were in close contact to the CAM. In samples that fully invaded the CAM, the mean percentage of proliferation was 3±0.04 and the pattern of expression was scattered irregularly. Whereas in the samples that had partially invaded the CAM and samples that had only begun the invasion process, the expression of proliferation was scattered in areas that encountered the CAM, with the mean percentage of proliferation being 5±0.05 and 0.5±0.01 respectively.

Conclusion: In this study, we have proven that endometrioma tissue has the capability to invade into deeper layer. The mean proliferation rate in the fully invaded group is higher than the partially invaded group and the group that had only begun the implantation process, but the results are not statistically significant. During the invasion process, cell proliferation is needed in areas where the tissue meets the CAM, specifically at the borders of tissue and the CAM, however once the CAM is invaded the CAM, cell proliferation occurs evenly in all areas thus expanding the tissue. This is an ongoing research thus addition towards the sample size is still possible.

O06-1374 ASSESSMENT OF OVARIAN RESERVE TESTS FOR PREDICTION OF OOCYTE YIELD AND CHANCE OF PREGNANCY AFTER OVULATION INDUCTION

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Introduction: Ovarian reserve plays a crucial role in achieving pregnancy following any treatment in sub fertile women. Assessment of ovarian reserve is essential for prediction the ovarian response and outcome of In Vitro Fertilization. Traditionally the age, basal follicle stimulating hormone (FSH), and estradiol (E2) levels were used for evaluation of ovarian reserve. Though ovarian reserve declines with age, it varies between individuals. Recent studies indicate that anti-mullerian hormone (AMH) and antral follicle count (AFC) are the two most reliable markers of ovarian reserve for prediction the outcome of In Vitro Fertilization. Traditionally the age, basal follicle stimulating hormone (FSH), and estradiol (E2) levels were used for evaluation of ovarian reserve.

Methods: The prospective study included 111 infertile women, who underwent IVF with or without ICSI. Patients with an oocyte count ≤3 were considered as poor responders (n=48); those with 3 were considered as good responders (n=68). AFC levels of FSH and AMH were determined on day 3 of menstrual cycle. Results: The results of the whole study show that, the correlation between AMH and number of oocytes was the strongest (r=0.59) as well as between AFC and number of oocytes (rs=0.6). There were statistically significant differences between two groups in all parameters. Poor responders were older, had higher FSH concentrations, lower AMH and AFC values and significantly lower number of retrieved oocytes and embryos compared with good responders (p<0.05). Comparison between those with ongoing pregnancy (n=32) and those without (n=48) revealed that there were significant differences in age (p<0.001), AMH (p=0.004) and AFC (p=0.008), as well as in number of retrieved oocytes (p<0.004) and number of embryos (p=0.002).

O05-1285 MIFEPRISTONE AS A METHOD OF CHOICE FOR CERVICAL RIPENING IN COMPARISON WITH FOLEY’S CATHETER AND LAMINARIA STICKS

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Problem statement: Cervical ripening influences the outcome of induction of labor(OL) before its spontaneous onset for delivery of the fetus. Mifepristone as a steroidial antiprogestogen which acts as a competitive progesterone receptor antagonist is more known as a competitive progesterone receptor antagonist is more known as a competitive progesterone receptor antagonist as good responders (n=68). AFC levels of FSH and AMH were determined on day 3 of menstrual cycle. Results: The results of the whole study show that, the correlation between AMH and number of oocytes was the strongest (r=0.59) as well as between AFC and number of oocytes (rs=0.6). There were statistically significant differences between two groups in all parameters. Poor responders were older, had higher FSH concentrations, lower AMH and AFC values and significantly lower number of retrieved oocytes and embryos compared with good responders (p<0.05). Comparison between those with ongoing pregnancy (n=32) and those without (n=48) revealed that there were significant differences in age (p<0.001), AMH (p=0.004) and AFC (p=0.008), as well as in number of retrieved oocytes (p<0.004) and number of embryos (p=0.002).
Women with ongoing pregnancy were younger, had higher values of AMH, AFC, oocytes and embryos number. No significant differences were observed in concentrations of FSH (p>0.115). The binary logistic regression analysis for clinical ongoing pregnancy shows, that age is the only factor, which significantly predicted the likelihood of clinical ongoing pregnancy (B=0.14; p<0.005). The cut-off value of the age for prediction of the clinical pregnancy was 33.5 y (ROC_C=0.733; sensitivity 79%, specificity 50%). Binary Regression Analysis for Poor Ovarian Response shows, that AFC is the only factor which significantly predicts poor response. The cut-off value of AFC for prediction of poor response was 5 (ROC_C=0.816; sensitivity 90%, specificity 65%). Conclusion: AMH and AFC have the same values for FSH. Both could be used as markers of embryo quality after ovulation induction. The levels of FSH have no predictive value for embryo number and chance of pregnancy during IVF. AFC is the most reliable predictor of poor response and reproductive outcome after ovulation induction during IVF. Among ovarian reserve tests Age is the only factor which significantly predicts the likelihood of cumulative ongoing pregnancy during IVF.

**O09-1494**

**PREGNANCY OUTCOMES IN INFLAMMATORY BOWEL DISEASE - A RETROSPECTIVE STUDY**

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**Problem statement:** Inflammatory bowel disease (IBD) affects women in the childbearing age. Pregnancy is often associated with worst outcomes, particularly in cases of poor disease control before pregnancy. IBD has been described as a risk factor for prematurity, fetal growth restriction, low Apgar rates, and caesarean delivery. However, the results of studies are inconsistent1-3. Fear of congenital malformations related to medications is the main responsible for lack of compliance treatment during pregnancy 1. The aim of this work is to evaluate the effect of IBD on pregnancy outcomes and study the effect of disease relapse during pregnancy. **Methods:** A retrospective case control study was conducted. Pregnant women with IBD with pregnancy surveillance and delivery were selected from our institution were selected. Statistical sociodemographic information, obstetric history, disease control, pregnancy and delivery data were recorded. Consecutive delivery resulting of low risk pregnancy was selected as control. Characteristics of both groups were compared. Statistical analysis was performed using SPSS 24. **Results:** 51 women were identified. 19 were excluded. 11 were pregnant before disease was diagnosed, 4 did not had term pregnancies and 4 cases with missing information. 32 pregnant women with IBD were included in the analyses. 32 women were identified for the control group. There were no significant differences in outcomes between the control and IBD group except for the type of delivery, with emergency caesarean section more often observed in the disease group than in the control group (12.5% vs 3%; x² (3) =20.05; p<0.003) (Table 2). Disease reactivation was associated with a significant difference in fetal intrapartum distress compared with women with good disease control (p=0.043) (Table 3). There were no difference on obstetric outcomes. This study provides evidence that disease relapse during pregnancy is related to poor obstetric outcomes, with increased fetal intrapartum distress showing the importance of a good control of the disease activity during the pregnancy. This also reinforces the need for prenatal counselling so that women won’t stop medication because of fear of teratogenicity. Sample size may be a limiting factor in our study.

**References:***

1. Fear of congenital malformations related to medications is the main responsible for lack of compliance treatment during pregnancy. 2. The aim of this work is to evaluate the effect of IBD on pregnancy outcomes and study the effect of disease relapse during pregnancy. 3. Fear of congenital malformations related to medications is the main responsible for lack of compliance treatment during pregnancy.
Mechanically, the N-terminal transactivation domain of an encrypted AR gene holds two facets of tri-nucleotide repeats such as (CAG)n and (GGC)n respectively, which encodes polymorphic homopolymeric long stretches of polyglutamine and polyglycine tracts of amino acids. We retrospectively, investigate the singleton or combinatorial effects of the length of these repeats on asthenospermic male reproductive hormones, clinical parameters, semen analysis as well as sexual assessment function of 210 outpatients along with 125 normal subjects. Sexual assessment was executed using the International Index of Erectile Function (IIEF-15 score) which measures erectile function (EF), orgasmic function (OR), sexual desire (SD), Intercourse satisfaction (IS) and overall satisfaction (OS). Our findings suggesting that long (26 CAG) n repeats have associated an inverse correlation with circulatory FSH and T, whereas long (25 GGC) n repeats have moderate affiliation with reduce sperm concentration. The study revealed a novel finding by exploring the negative correlation between elongated (CAG) repeats and the cumulative IIEF-15 score, Orgasm function (OR) and Erectile function (ED) in asthenospermic men. This study for the first time explore the previously concealed landscape of Tri-nucleotide correlation with sexual functions, semen parameters and hormonal assay of asthenospermic Punjabi men. Such research delivered a benefit for the understanding of deep insight exploration of an ongoing regulatory mechanism involved in the sexual development and spermatogenesis.

O11-1535
EVA - A RANDOMIZED CONTROLLED TRIAL OF LATERAL EPISIOTOMY VERSUS NO EPISIOTOMY IN VACUUM ASSISTED DELIVERY - IMPLEMENTATION CHALLENGES
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Problem statement: Operative vaginal delivery (OVD) occurs in 10% of non-parous women in Sweden, and almost all are vacuum extractions. The rate of obstetric anal sphincter injury (OASI) is 12-14% in these women, compared to 6-7% at spontaneous vaginal delivery (SVD). Several studies now indicate that a lateral/mediolateral episiotomy at OVD reduces the risk of a OASI, especially in non-parous women with aOR 0.11-0.73. However, lateral episiotomy in Sweden is not associated with a reduced risk of OASI per the Swedish Medical Birth Register (SMBR), and episiotomy rates are low (SVD 3-5%, OVD 10-15%). The aim of our study is to investigate if lateral episiotomy at OVD in non-parous women reduces the rate of OASI, and if short, medium and long-term complications after episiotomy versus no episiotomy (possible spontaneous tear) differ.

Methods: We have initiated a randomized controlled trial of lateral episiotomy versus no episiotomy in OVD in non-parous women. At least 250 women in each allocation group are needed to show a 50% OASI prevalence reduction from 14% to 7% with 80% power and p<0.05. Up to 1400 women will be randomized to show a 30% reduction. Several sites will be engaged. Trial inclusion is expected to be completed within 3 years. Women are included after gestational week 25 up to delivery, and randomization is done at decision on OVD. Primary outcome is clinical diagnosis of OASI. Several secondary outcomes are collected from SMBR and from web-based questionnaires at 0, 2, 12, and 60 months assessing pain, incontinence, prolapse, sexual function, quality of life, childbirth experience, and subsequent births.

Results: The trial opened for randomization June 30, 2017, and preparations. Randomization has been slow, mainly due to a reluctant attitude in the staff in the delivery ward, based on expectations on negative attitudes in patients, deleterious effect on labor to talk about possible complications, and increased pain and sexual problems compared to spontaneous tear/no tear. However, informing the patients and staff in antenatal care has posed less problems than expected. If the patient is properly informed before active labor, it is conceived as more ethical.
plasma Galectin-3 were analysed by chemiluminescence reaction by a commercially available kit (Architect System, Abbott). Results: The mean age of the patients were 34.67±5.43 years (minimum 24 and maximum 52). 16.4% of cases had oligozoospermia and 83.5% had normozoospermia (≥15mil/ml). The mean age of the patients with oligozoospermia and normozoospermia were similar (p=0.05). The mean DFI of the cases were 24.27%. The DFI was significantly higher and TPMSC were significantly lower in oligozoospermia compared to normozoospermia group (25% vs 21%, p=0.03 and 0.54 vs 16.80 x 10^6, p=0.01, respectively). The mean Galectin-3 levels of all cases were 216 ng/ml (min 8.6 ng/ml -max 794 ng/ml), 162 ng/ml in oligozoospermia cases and 90 ng/ml in normozoospermia group (p=0.05). When data of all patients was analysed, neither DFI nor Galectin-3 levels were correlated with semen parameters like sperm count, motility, morphology, and TPMSC. In oligozoospermia group, Galectin-3 levels were found to be statistically insignificant in the intervention and control groups in the progressive motile sperm count (r=-0.479, p=0.024) Conclusion: In the previously published articles, galectin-3 was identified as an endogenous plasma protein in prostatitis. And prostatitis results in spermatozoa, to increase sperm motility by delivery of intra-prostatic calcium stores. Although, conventional semen analysis and DFI were not correlated with Galectin-3 levels in normozoospermia cases, the results from this study shows that there is negative correlation of seminal plasma Galectin-3 levels with progressive motility in oligozoospermia group. Therefore, our data might indicate the role of Galectin-3 in sperm function. To clarify the possible role of Galectin-3 in human spermatogenesis and sperm function, future studies with larger samples are needed.

O14-1213 PROBLEMS EXPERIENCED BY OBESE PREGNANT WOMEN IN THIRD-TRIMESTER AND EFFECTS OF OBESITY ON QUALITY OF LIFE

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The study was planned to investigate quality of life (QoL) in obese pregnant women with third trimester. To compare pregnancy problems of obese women to those with body mass index (BMI) 30. One hundred and ninety-six women with 28± gestational weeks and admitted to the clinic with the first diagnosis of pregnancy were included into this descriptive study. A 37-item questionnaire and the WHOQOL-BREF scale were used to accumulate the data. Descriptive statistics were evaluated with number, percentage, mean and standard deviation, and the chi-square was used as the significance test. In the comparison of intergroup parametric data, the Student’s t test was used. Mean age rate, gestational age, number of pregnancies and number of births of study participants were 26.2±5.6, 36.8±3.3, 2.6±1.6 and 1.3±1.3, respectively. Of all participants, 54.6% were graduated from primary school and under, 94.4% were housewives, 70% were from middle income families, 70.9% were cigarette smokers, 25.5% were primigravidas, and 70.9% had planned pregnancies. At all, 36.7% performed exercises (walking, etc.), 22.4% were afraid of gaining weight, 19.9% were under the threat of abortion, and the pregnancies of 35.2% were at risk. Also, 26%, 14.8%, 45.4%, 14.8%, 53.6%, 71.4% and 23.5% were determined to suffer from hyperemesis, infections, stomachache, psychological problems, insomnia, exhaustion and constipation, respectively. Educational status of pregnant women with BMI≥30 was statistically significantly lower than those with BMIs<30, and in terms of risky pregnancies, a significant difference was observed between both groups. However, the status of smoking and fear of weight gain in BMI≥30 group were higher than those with BMI<30. When both groups were compared in terms of QoL and subdimensions, both groups were observed to have similar results as to physical (p=0.341) and social (p=0.274) areas, although a statistically significant difference was found between both groups regarding psychological (p=0.034) and environmental (p<0.05) areas. Obese pregnant women were detected to have lower educational status and higher rate of smoking and fear of gaining weight. In such women, psychological and environmental areas among subdimensions of QoL were found to be affected negatively.

O15-1159 TRAUMATIC BIRTHS AFFECT BOTH MOTHER AND NEWBORN NEGATIVELY, FOR SURE; WHAT ABOUT A MIDWIFE? A LITERATURE GAP IN TURKEY!

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• Being randomized in the study guarantees an optional 6 months’ post-natal visit, a 5-year follow-up of pelvic floor function, and easy access to gynecological help through the research team.

Conclusion: Implementing an RCT of a controversial intervention (lateral episiotomy) associated with another undesirable intervention (vacuum extraction) is challenging. Identifying a few strong selling points in order to organize the information in clear steps is crucial for success.

O12-1333 THE EFFECT OF EARLY SKIN TO SKIN CONTACT ON NEONATAL COMPLIANCE AND BREASTFEEDING SUCCESS IN PRETERM LABORY

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Aim: This study is a semi-interventional randomized controlled trial to determine the effect of early skin to skin contact on neonatal compliance and breastfeeding success in preterm labor. Methods: The sample of the study consisted of 20 interventions and 30 controls, totally 50 mothers and premature babies. The sample size was calculated by power analysis (80.0% power). Data was used by descriptive data collection form, neonatal compliance form and LATCH Breastfeeding Charting System. Fisher’s exact chi-square test, Student’s T test and Mann Whitney U test were used in the evaluation of the data. Results: The difference between the groups in terms of the study, the time to start breastfeeding and the duration of breastfeeding was found to be significant in favor of the intervention group (p<0.05). Also, LATCH score mean of the intervention group was higher than the control group on the 14th postpartum day (p<0.05). It was found that the level of compliance and satisfaction with maternal role of the women in the intervention group was higher than the control group (p=0.05). There was no statistically significant difference between groups per feeding only with breast milk, transition to supplementary food and average increase in birth weight (p> 0.05). Body temperature, respiration rate and blood glucose level were found to be statistically insignificant in the intervention and control groups in the first hour postpartum (p> 0.05). Conclusion: It has been determined that the effect of early skin to skin contact have a positive effect on compliance with maternal role, neonatal compliance and breastfeeding success in preterm labor.

O13-1178 GALECTIN-3 LEVELS AND DNA FRAGMENTATION INDEX IN EJACULATED SPERMATOZA OF MEN WITH INFERTILITY

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Problem Statement: Galectin-3 is a protein from a large growing family of animal lectins. Although Galectin-3 is involved in immunomodulation, and cancer progression, the implications of Galectin-3 expression in the male reproductive tract needs to be investigated. The detection of Galectin-3 in Sertoli cells, that support spermatogenesis, and in prostatomes in seminal plasma implies a regulatory role of this protein on spermatogenesis or sperm function. This study is designed to explore the levels of Galectin-3 in seminal plasma of infertile men. The correlation with basic semen parameters (sperm count, motility and morphology) and DNA fragmentation were performed to identify the association with sperm quality and quantity. Methods: The study population is composed of 152 infertile men. Exclusion criteria is as follows: abnormalities in medical history/physical examination, subclinical genital infections, cryptorchidism, cancer, varicocele, heavy smokers (20 cigarettes/day), and azospermia. Semen samples were obtained by masturbation after 2–5 days of sexual abstinence and stored in sterile containers. Basic sperm parameters were evaluated per World Health Organization criteria (WHO, 2010). Total progressive sperm count (TPMSC) were calculated (total ejaculated sperm count x progressive motile sperm/100). Oligozoospermia were defined as sperm count 15mil/ml. The remaining sample were used for cytometry test for detection of DNA fragmentation as described earlier (Erenpreisa et al., 2003). DNA fragmentation index (DFI, %) were defined as the proportion of sperm cells with abnormal DNA conformation. Seminal
A midwife is a person who ensures the healthy termination of normal deliveries. However, midwives do not always encounter healthy and problem-free deliveries, as not all deliveries will be normal. The bond between the midwife and the woman giving birth is very strong and any complications or loss during birth can cause trauma by negatively affecting the woman's psychological health as well as the midwife. The fact that midwives accompany or witness traumatic births can be adversely affected in terms of psychological health, quality of job-life and even family life, resulting in post-traumatic stress disorder. Despite the fact that there is a special empathetic bond between the woman who will give birth or who gave birth and the midwife, there is a limited information on the psychological or emotional distress of midwives who witnessed traumatic births and information on interventions to be taken in the literature. Unfortunately, the prevalence of the trauma midwives experienced after a traumatic birth in Turkey is unknown!!! There is no such study in Turkey. On the other hand, it is reported in international literature that the perinatal posttraumatic stress disorder experienced by midwives is between 17% and 33%. In addition, it has been reported that in traumatic symptoms such as psychological, quality of job-life, after a traumatic birth, to determine prevalence rates by examining midwives working in delivery rooms and obstetrics and gynecology clinics in Turkey in terms of traumatic stress disorder, and to provide support programs for the ones showing symptoms.

**O16-1287**

THE USE OF SILDENAFIL IN EARLY ONSET INTRAUTERINE GROWTH RESTRICTION

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Early onset intrauterine growth restriction has traditionally had a poor perinatal outcome in the past. Recently, Sildenafil citrate has emerged as a potential management option in the treatment of this condition as it is postulated that its vasodilatory effect improves uterine blood flow and hence outcome at delivery. Two cases of severe early onset intrauterine growth restriction who presented to us within days of each other were treated with Sildenafil and the outcome of the pregnancy was followed up. The first case was a 39-year-old primigravida who was diagnosed with asymmetrical growth retardation at 22+4 weeks of gestation. An anomaly scan performed at the same time was reportedly normal. This was classified as Stage 3 fetal growth restriction per the Fetal Medicine Foundation Growth Calculator. She was started on Sildenafil of 25 mg three times a day and Doppler studies showed improvement in velocimetric profile over the following weeks. The fetus, however, showed signs of distress at 30+2 weeks of gestation with contractions on cardiotocography and was delivered by emergency Caesarean section. The baby, a male, was born in good condition weighing in at 840g and was assigned Apgars of 4,4,8 at 1,5,10 minutes of life. It was noted that he had hypoplastic antenatal intensive care and made good progress in the first month of life. On day 28 he developed fulminant necrotizing enterocolitis and underwent a laparotomy. Following this, the baby’s condition never improved until on day 41 it was decided to withdraw care.

The second case studied was a much younger 23-year-old primip who was associated with improvement in Dopplers while in the second case there was next to no amelioration of Doppler flow, the infant survived a near-complete fetal demise. The fact that both babies had abnormalities of genitalia with hypospadias and ambiguous genitalia being diagnosed at birth.

**O17-1443**

AN EVALUATION OF OVARIAN RESPONSE AND PREGNANCY RATES WITH THE USE OF GROWTH HORMONE AS AN ADJUNCT TO IVF IN POOR RESPONDERS WITH AMH AS BIOMARKER

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There were 201 women in total, with 98 in the control and 103 in the study group. The mean age of the study group was older (38 years vs 36 years) and the control group had higher AMH levels, especially amongst the respondents under the age of 40. Both groups were statistically significantly different with regards to AMH levels and age, p-values 0.001 and 0.007 respectively. The number of oocytes, embryos, embryos for embryo transfer (ET), their grade and cell number were recorded post intervention. Results showed that the two groups produced on average equal numbers of oocytes, embryos and embryos for ET. The control group produced proportionally more grade 1 embryos (64%) than the study group (55%). With regards to pregnancy achievement, the study group exhibited significantly more pregnancies than the control group (35 vs 30) although this was not statistically significant (p-value 0.05). The control group had on average, women of slightly younger age failing to achieve pregnancy (35 years) whereas the study group the average age was 38 years. The study group had more respondents over the age of 40, i.e. 14 women vs 6 in the control group achieved pregnancy. AMH levels were higher amongst women who achieved pregnancy in the control group (3.61 vs 2.78) but were only negligibly different for positive responders in the study group (1.57 vs 1.32). There was no statistically significant difference noted for the quality and quantity of the embryos for ET between the two groups (measured post hoc). Conclusion: This study suggests that GH is a useful adjunct in the treatment of women who are poor responders to standard ovarian stimulation protocols. It demonstrated that despite the fact that the study group had both on average an older age and lower AMH levels (both markers of poor IVF responders) they had significantly more pregnancies than expected for those under the age of 35 and relatively, although not statistically significantly more pregnancies than expected for those over the age of 35 (28% vs 25%).

**O18-1502**

THE EFFECTS OF HIV INFECTION AND ANTIRETROVIRAL THERAPY ON OVARIAN RESERVE AND IVF SUCCESS

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**Design:** Retrospective randomized study. Setting: BioART Fertility centre/ Durban University of Technology. Target population: HIV positive females undergoing IVF treatment. This target population is further subdivided into patients who are on antiretroviral therapy and those who are not. Intervention(s): The ovarian reserve was measured using two biomarkers: antimullerian hormone (AMH) and the antral follicle count (AFC). The blood concentration for AMH levels was measured using the automated Beckman Coulter Access AMH assay. The AFC was continuously measured using transvaginal ultrasound. Viral load and CD4 lymphocyte counts were measured using the ROCHE COBAS Amplicor and flow cytometric analysis tests, respectively.

**Results:** A total of 79 patients started IVF treatment and only 75 reached embryo transfers. 21 positive pregnancies were achieved, 20 (95%) of these patients had a CD4 count greater than 200. Furthermore, from the total of 21 positive pregnancies, 9 patients (43%) were not on antiretroviral therapy and 12 patients (57%) were on treatment. The HIV seropositive population has a statistically lower AMH than the HIV seronegative population (sig.0.011). Conclusion: The ovarian reserve, as depicted by the antimullerian hormone concentration in HIV infected patients is significantly lower when compared with expected age related AMH levels. However, there is no statistically recognizable difference between the AMH levels of patients who are on antiretroviral therapy and those who are not. Furthermore, the viral load and CD4 lymphocyte counts did not seem to influence the ovarian reserve. There were significantly fewer pregnancies in the HIV group as a whole (28% vs 34.5%). 95% of those who had conceived had CD4 lymphocyte counts above 200, suggesting that CD4 counts may influence conception. There were more pregnancies.
in the ARV treatment group versus those who were not on treatment but this did not reach statistical significance (57% vs 43%). The mean CD4 count of HIV-infected women in the ARV and oral contraceptive reserve remains speculative. Time from onset viraemia to actual diagnosis may play a significant role. Since ovarian reserve is largely irreversible, it would be important to evaluate the long-term influence of ARVs/CD4 count and viral load on the rate of ovarian depletion and hence fecundity.

019-1394
USE OF MISOPROSTOL IN THE PREGNANCY TERMINATION IN THE SECOND TRIMESTER IN WOMEN WITH PREVIOUS CAESAREAN SECTION

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Objective: Evaluation of efficacy and safety in the use of analogs of PGE1, misoprostol, to induce abortion or birth in the second trimester of pregnancy in women with previous caesarean section (one or more). Introduction: Misoprostol, a synthetic prostaglandin E1 analogue, has largely replaced all the other techniques for ending pregnancy, due to its low cost, high efficiency, safety, easy of use, and storage. One of the main reasons for pregnancy termination, a high incidence of uterine ruptures and hemorrhages has been reported in women with previous caesarean section in the second trimester, compared to patients without it. In this study the safety of using misoprostol as a stimulant for inducing labor in the second trimester in women with cicatricial uterus still has issues to clarify.

Materials and methods: Participants in this study included patients at U.H.O.G. "Koco Gjokhani" Tirana from April 2004-July 2006, presenting with an indication for inducing labor in the second trimester for pregnancy termination such as: missed abortion (13-22 weeks); fetal death (22-28 weeks); fetal anomalies; PROM, and risk of infection. A total of 118 patients were randomly admitted for birth inducing activity. Those women who have had at least one segmental cesarean section at 13 to 28 weeks’ gestational age were included in the study group (13), and women who also underwent the pregnancy termination for the same indications but without previous caesarean section were included in the control group (105). Oral or vaginal misoprostol was administered at a dose of 400μg / 4 h for a maximum of 48 hours [ vaginal (42); orally (49); not per protocol (27)]. The data of each patient was thrown into a data system where statistical processing was done. Results: Both groups were comparable regarding women age and weight, parity, indications, Bishop’s score, fetal weight and the gestational age. The median time from induction to labor in the study group was 21.512 (hours) (SD 14.1583), which had no significant difference with women without caesarean section (control group) 18.6506 (SD 13.3743) (p > 0.60). Misoprostol was found safe in this study and there were no cases of rupture or with dehiscence (ruptures of posterior fornix were seen in women without caesarean section). There was no significant difference in percentages of complications, birth defects, post-abortion hemorrhage. Conclusion: Use of misoprostol for the termination of pregnancy in the second trimester in women with previous caesarean section is not contraindicated and appears to have comparable efficacy with the results achieved in women without caesarean section.

O21-1335
COMPARISON OF INVASION PROCESS OF PERITONEAL ENDOMETRIOSIS AND ENDOMETRIOMA TISSUE IN CHICK CHORIOALLANTOIC MEMBRANE: A PRELIMINARY STUDY

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Problem statement: Endometriosis is defined as functional endometrial gland and stromal tissue located outside the uterine cavity. The unique characteristic of endometriosis is the invasion of the tissue into deep infiltration (deep infiltrating endometriosis) which is like cancer tissue. However, the invasion mechanism in endometriosis is not understandable yet. Endometriosis tissue consists of epithelial cells, stromal cells and smooth muscle cells (especially in peritoneal endometriosis). From the complete study, infiltration and infiltration of the tissue requires tissue integrity. Chick chorioallantoic membrane (CAM) is the in vivo model of animal that is usually used for invasion and metastatic tissue observation. The invasion of peritoneal endometriosis (PE) and endometrioma (EMA) into deeper sites are not easily observed in the patient’s due to procedure difficulties and ethical consideration. The objective of this research is to evaluate the invasion process in in vivo model by using CAM. Methods: PE lesions (<5 patients, 7 implanted tissues), EMA lesions (<7 patients, 11 implanted tissues), endometrioma (E, n=8 patients, 9 implanted tissues) and a control group (n=6 patients) were implanted on chick chorioallantoic membrane taken from fertilized eggs which were incubated for at least 5 days, to a maximum of 10 days, with 55% relative air humidity, while being rotated hourly. At day 5 of incubation, a circular window (1 cm in diameter) was made in the eggshell and the CAM was ready for tissue implantation. The window was covered with Scotch tape to prevent dehydration. The eggs were placed in the incubator without rotation until day 15 of incubation. The tissues were carefully dissected into uniform pieces of 3-4 mm3 and transplanted into the CAM. The time duration of the tissue implantation in CAM was 5 days. At day 5 of tissue implantation, the CAM was carefully dissected circularly with the tissue placed at the center and fixed in formalin and embedded in paraffin. Paraffin sections were later cut into 4 μm slices and stained with Hematoxylin Eosin for histological evaluation. The evaluation focuses on the invasion process (defined as embedded tissue in the CAM and irregularity of chorion cells) and the tissue integrity (defined by the appearance of the epithelial cells and stromal cells in the tissue). Results: The percentage of tissue invasion in the CAM, regardless of full invasion or partial invasion, in PE, EMA
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There were more intensive and complete kisspeptin immunostaining in syncytiotrophoblast and cytotrophoblast cell layers of placental villi. The detectable kisspeptin expression was 3 times higher in preeclamptic placentas compared to control group. Immunohistochemical method were employed to examine kisspeptin protein expression in the placenta. Primary monoclonal antibodies to Kiss1 (1:150, Abcam) and monoclonal antibodies to Kiss1R (1:350, Abcam) were used for IHC reaction. Alexa Fluor 488 and Alexa Fluor 647 (1:1000, Abcam) were then used as secondary antibodies and diaminobenzidine as substrate. Scanning of samples was performed on a microscope FluoView1000 (Olympus). Results: No significant difference was noticed between preeclampsia and control group regarding to maternal age, also the mean gestational age at delivery was comparable in pregnancies complicated with preeclampsia 37.6±1.85 and healthy controls 38.3±0.53. During histological investigation of placenta numerous morphological features associated with placental disfunction in group with preeclampsia was found, such as infarction, immature placental villi. The detectable kisspeptin immunoreactivity was localized to the villous syncytiotrophoblast and cytotrophoblast cell layers of placental villi. There were more intensive and complete kisspeptin immunostaining in preeclampsia in comparison to healthy pregnancies (Fig.1). Morphometric analysis revealed that average area of kisspeptin expression was 3 times higher in preeclamptic placentas compared to control group. Conclusion: Kisspeptin could play a crucial role in development of preeclampsia because limited trophoblast invasion affects subsequent placental development and result in inadequate transformation of the spiral arteries.

Conclusion: Augmented virtual reality simulation seem to improve the motioral skills faster and more efficiently and also enable students to train on various pathological findings.

Problem Statement: Per current studies, an epidemic Vitamin D deficiency has been deemed among most of ethnic groups in the world. The presence of vitamin D receptor in female reproductive tissues suggests the regulatory roles in reproductive system. The
recent evidence indicates the potential effects on ovarian function, endometrial receptivity, and embryo quality. The results regarding the effect of vitamin D on clinical outcomes in assisted reproductive technologies are conflicting. **Methods:** This was a prospective cohort study in an academic tertiary care center (IVF Unit, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran) between March 2015 and March 2016. The study included 160 subfertile women younger than 40 years old and undergoing IVF / ICSI cycles. Serum samples were collected on triggering days. The follicular fluids were collected on the afternoon of retrieval days. Vitamin D status was measured by assessing 25OH-D levels in using Enzyme-linked immunosassay (ELISA, Accu-bind, Monobind Inc, Lake Forest, USA). Vitamin D insufficiency was defined as Serum 25OH-D<30ng/ml. Follicular fluid concentration of 30ng/ml was as cut off point for study evaluation. **Results:** Among all patients, 28.8% (46/160) were vitamin D insufficient whereas 71.3% (114/160) had normal vitamin D levels. In term of follicular fluid levels, 24.8 % (40/160) were less than 30 ng/ml and 75.1% (120/160) were equal or more than 30 ng/ml. The data regarding to baseline characteristics including age, parity, type and cause of infertility, stimulation protocol, endometrial thickness, and number of transferred embryos were similar between women with different serum and follicular fluid 25OH-D levels. The chemical and clinical pregnancy rates were detected in 49 (30.6%) and 39(24.4%) women, respectively. The clinical pregnancy rate was lower among those women who had follicular fluid 30ng/ml, compared with those women with follicular fluid ≥ 30 ng/ml (12.5% vs. 28.3%, respectively, p= 0.04). The chemical pregnancy rates also varied by follicular fluid 25OH-D concentration being lower in cases with follicular fluid 25OH-D ≥30ng/ml and higher in cases with follicular fluid <30 ng/ml (17.5% vs. 35%, respectively, p = 0.03). No statistically significant differences in both groups were recorded on oocyte retrieval days. Vital signs protocols, and the percentages of chemical pregnancy rates also varied by follicular fluid ≥30 ng/ml (17.5% vs. 25.7%, p=0.08, 95%CI 0.526-1,705). Higher implantation and clinical pregnancy rate has been recorded with WT as compared to BET transfer in the study group (45.2% vs 31.0% and 38.7% vs 23.5%, p=0.080). ROC curve has shown a P of <350 nmol/l on 5th day (embryo transfer day) to be a predictive for positive implantation and clinical pregnancy rate in both groups, p=0.185, 95%CI 0.479-0.605. **Conclusions:** Our results have shown that there is no statistical difference between the high and normal preovulatory P4 patients regarding their age and gonadotrophin dosage, however, higher number of retrieved and fertilized oocytes has been found in the study as compared to the control group. Furthermore, our preliminary results have failed to establish the relationship between the preovulatory P4 and IVF outcome. This can be explained by a more appropriate timing of embryo transfer at the blastocyst stage (5th day) with the improved implantation rate, although it is a statistical significant. Positive implantation and clinical pregnancy rate is associated with P4 of ≥350 nmol/l on 5th day in both groups. **026-1458** HOW RELIABLE ARE WBC COUNT AND CRP TO MONITOR FOR INTRA-AMNIOTIC INFECTION? **Aulona Gaba**, Petra Pateisky, Herbert Kiss, Ljubomir Petricevic University Clinic of Obstetrics and Gynecology, Vienna Medical University, Vienna, Austria

Intra-amniotic infection is a serious complication associated with preterm birth and significant perinatal and maternal morbidity. The accurate diagnosis based on clinical signs of the infection in the pregnant mother is often made at a time when the infection has generalized and septicaemia has ensued. The delayed detection of the early signs of intrauterine infection is obstetrically the repercussion in the immunologic tolerance developed toward the fetus during pregnancy as well as the barrier function of the placenta and membranes. Therefore, we are able to diagnose a chorioamnionitis only later in its course, when the fetal health is at risk and sometimes even the maternal health have already been compromised. In lack of other accurate and safe diagnostic procedures to detect the early signs of intrauterine infection, we often rely on serial measurement of White Blood Cell (WBC) count and C Reactive Protein (CRP) to monitor for chorioamnionitis in patients at risk. But how reliable are these parameters really? Can they detect a local intrauterine infection before it is generalized? To answer this, we analysed retrospectively cases where diagnosis of intra-amniotic infection syndrome was ascertained clinically, histologically or both. These patients were women admitted in our tertiary setting university clinic or in the outpatient care department, diagnosed with cervical incompetence or at imminent risk for preterm birth. The aim of the study was to find out whether there is a significant and clinically useful change of these two blood parameters in the 48 hours preceding the clinical diagnosis of intra-amniotic infection. Only patients from which we had at least two results of each WBC Count and CRP from blood samples withdrawn in the period from one week to 48 hours prior to the diagnosis of chorioamnionitis were included in the study. The earliest blood results obtained one week to 48hrs prior to the diagnosis of chorioamnionitis was set to 100% and served as control. In women receiving a course of steroids, an increase of 4,000 /mm3 in WBC count was considered normal to account for glucocorticoid induced leukocytosis and this value was subtracted before analysis. In addition, we also compared the values of CRP and WBC count after the clinical diagnosis, to their pre-diagnosis measurements. We found that only the values of the WBC count and CRP obtained in the 48h after the clinical diagnosis of intra-amniotic infection showed a significant increase compared to the controls. Thus, this increase most probably reflected the generalized infection.
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COGI-1087
LOW DOSE ASPIRIN AND WELLAGEING
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Should we prescribe low-dose aspirin as an anti-aging medication? The multitude of properties of aspirin and the potential of these attributes could they prevent the cellular and functional declines, particularly from inflammatory and oxidative sources, evidenced to contribute to aging? Aspirin is a widely administered, anti-inflammatory, cheap and antioxidant medication with a variety of positive effects on the immune system and cardiovascular health. It also may affect oxidant production, cytokine responses, and block glycoxidation reactions. Aging is also an interplay between oxidative and inflammatory stress. Could low-dose aspirin help in improving lifespan? Aspirin, also known as acetylsalicylic acid (ASA), a medication used to treat pain, fever, and inflammation is also used as a long-term primary and secondary prevention to help prevent heart attacks, strokes, and arterial blood clots. The European Society of Cardiology and the American Heart Association recommend that a primary prevention with low dose acetylsalicylic acid (ASA) is appropriate for all age groups and both sexes in the case of a 10-year risk of heart attacks of over 10%. The daily low-dose aspirin therapy inhibits the platelet aggregation and has also long been used in the secondary prevention of cardiovascular diseases. Rather new is the discussion about the oncoprotective effectiveness of acetylsalicylic acid (ASA). It may also decrease the risk of certain types of cancer, particularly colorectal cancer. Meta-analyses by Peter Rothwell of the University of Oxford at Lancet Oncology 2012 show that a multi-year ASS therapy is effective in oncological primary and secondary prevention, the formation of metastasis. The publications also showed a reduction of the distance metastases in adenocarcinomas up to 70 per cent but rather no effect on the local tumor growth. The American study (Aspirin Intake and Survival After Breast Cancer, M.D. Holmes et al., JCO 2010, 29: 1467-1472) also shows a possible risk reduction for breast cancer by half by regular intake of aspirin. The mechanism of action of ASA is still being discussed: an energy-saving mode is therefore also an additional weapon for metabolic disease risks. Aspirin under the condition of primary treated hypertension is therefore also an additional weapon for metabolic syndrome, one of the major aging risk in Western Society.

O27-1212
CONTRACEPTION COUNSELING PROJECT FOR WOMEN ATTENDING A GYNECOLOGY CLINIC IN TURKEY: DOES IT WORK?
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Problem Statement: Contraception counseling is crucial in gynecology, but there is usually not enough time for contraceptive counseling. Our goal is to screen out women who need counseling before they enter the physicians’ waiting room and evaluate the results.

Material and Methods: All women who applied to gynecology clinic were given Contraception Counseling Project Form consisting of 15 questions including age, education level, ongoing pregnancy/desire for pregnancy, number of deliveries, previously/currently used contraceptive method, reasons for not using contraception/changed method, sources of information, cigarette usage, number of days of menstruation, and medical history. All women filled the forms in the waiting room, physician and women evaluated the form in the examination room, appropriate method was advised, and noted. Forms of women who were postmenopausal and who were not sexually active, and which had more than 1 unanswered question were excluded. Results: Total number of forms was 1000. 823 were complete, 60 missed out 1 question, 46 were postmenopausal/sexually inactive, 41 missed out more than 1 question, and physicians did not counsel 30 women although they filled out the form. 913 forms (complete+one question missing forms+group not counseled) were accepted for evaluation. Mean age was 35.1±7.9. Education level is summarized in Figure 1. 23.5% were planning pregnancy. 15.0 (4.8%) were pregnant. 62 (6.8%) were lactating. 225 (24.6%) were smokers. 700 (76.7%) had received information regarding contraception: 83 (9.1%) from internet, 20 (2.2%) from newspapers, 19 (2.1%) from pharmacies, 449 (49.2%) from physicians, 34 (3.7%) from friends, 64 (7.0%) from other resources. 506 women used contraception; 215 women were planning pregnancy, 375 used valid method, 131 used interrupted colostus (CI). 41 (4.5%) used OCP, 111 (12.2%) used IUD, 173 (18.9%) used condoms, 4 (0.4%) used calendar method, 46 (5%) BTL, 9.5% of women didn’t use contraception due to difficulty, 41.3% due to side effect concern, 32.7% for absence of sexuality and 16.5% for other reasons. 320 (35.0%) used OCP before, 202 (63.1%) for contraception whereas 118 (36.9%) used due to prescriptions. Mean duration of OCP use was 22.9±37.9 months (1-240). 136 used for Conclusion: In Turkey, main source for contraception counseling is the physician. Time must be devoted to effective counseling during visits. Most physicians pay attention to counseling when it is made easier and find appropriate contraceptive methods. Figure 1: Education level of women.

CASE REPORTS OF DIFFERENT MALIGNANT GTN WITH SIMILAR ULTRASOUND APPEARANCE
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Gestational trophoblastic neoplasm is rare event but more often among women younger than 20 and older than 45 years. Gestational trophoblastic neoplasm is an abnormality of fertilization and usually appears as a benign neoplasm of chorionic villi. Frequency is 1.03 on 1.000 delivery. Ultrasound is of great but relative value (RCOG) because there is no unique ultrasound model for GTN. This is a case report of three patients with malignant GTN (Chorlocarcinoma (2 patients) and Placental Site Trophoblastic Tumor (1 patient)) with a similar ultrasound picture. In all our patients, based upon ultrasound, laboratoric analysis (h-hCG) and histopathologic verification (explorative
curettage) diagnosis of GTN was established. Patients were subjected to surgical treatment. Postoperative histopathological diagnosis of Placental Site Trophoblastic Tumor in 1 patient and Choriocarcinoma in 2 patients was confirmed. Chemotherapy was administered per the protocol for GTN.

O30-1313
RISK FACTORS FOR PREGNANCY-ASSOCIATED VENOUS THROMBOEMBOLISM IN A MULTI-ETHNIC ASIAN POPULATION
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Problem Statement: Pregnancy-associated venous thromboembolism (VTE), which includes deep venous thrombosis (DVT) and pulmonary embolism (PE), although uncommon, is potentially life-threatening. PE remains as one of the leading direct causes of maternal death in Singapore. Despite its known severity, there is a paucity of local and regional studies on pregnancy-associated VTE risk factors. Knowledge of the risk factors in our population would allow better guidance in our obstetric thromboprophylaxis practices, with the aim of reducing the risk of this severe but potentially preventable condition. Methods: In a case-control study, women with objectively-diagnosed VTE during pregnancy or within 6 weeks postpartum, between 2004 and 2016, from KK Women’s and Children’s Hospital (KKH) and Singapore General Hospital (SGH), were identified. The control group consisted of pregnant women with no VTE who delivered at KKH. Data on maternal and obstetric factors were collected and the odds ratios (OR) for VTE as a measure of relative risk were computed. Results: From 2004-2016, 68 cases of pregnancy-associated VTE and 926 pregnant non-VTE controls were identified and included in the logistic regression analysis. Independent risk factors for pregnancy-associated VTE identified include Malay ethnicity, parity ≥ 3, non-O blood group, and smoking. In the postpartum period, women who delivered via caesarean section were found have a higher risk of VTE compared to women who had vaginal delivery. Conclusion: Women of Malay ethnicity, parity ≥ 3, non-O blood group and who smoke appear to be at increased risk of pregnancy-associated VTE. Women who deliver via caesarean section are at increased risk of VTE during the postpartum period. Risk assessment for VTE should be done in early pregnancy and at delivery, and women with these risk factors should be considered as candidates for thromboprophylaxis.

O31-1495
IS ULIPRISTAL EFFECTIVE IN TREATMENT OF UTERINE FIBROIDS?
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Problem statement: To evaluate Ulipristal in treatment of uterine fibroids and its potential role in reduction of surgical treatment of patients with previously diagnosed uterine fibroids. Methods: In this prospective study 40 patients with uterine fibroids were included. The main indication for treatment was reduction of tumour volume, reduction of uterine bleeding, and preparation for IVF procedure. Total of 69 uterine fibroids were analyzed and the largest dimension, tumour volume and vascularization of uterine fibroid was analyzed before and after treatment with 5 mg Ulipristal tablets for three months. Total uterine volume was also analyzed before and after medicamentous treatment. Statistical analysis with analysis of variance was performed in order to compare parameters before and after treatment with Ulipristal. Results: Mean patient’s age in our study group was 41,3±1,7 years. The total of 60 fibroids were analyzed in our study. Mean fibroid volume before treatment was 42.57±28.60 ml. Significant reduction of fibroid volume was observed after treatment (30.67±17.9ml). Mean uterine volume before treatment was...
273,1±93,7 ml. Significant reduction of uterine volume was observed after treatment (225,9±48,9 ml). Reduction of fibroid volume and also of uterine volume was ≥35 mm achieved in 35 patients. In 5 patients, after initial treatment with 5mg Ulipristal for 3 months, reduction of fibroid and uterine volume was not observed. Reduction of uterine bleeding was present in all patients during therapy and also after finished therapy. Conclusion: Five mg Ulipristal medicamentous therapy in three month period, has good potential as first line treatment in patients with uterine fibroids, especially in older patients who should be included into IVF procedure, and also patients who need preoperative correction of anaemia and also reduction of tumour volume before operative treatment.

O32-1530
SHOULD 3D SIS BE PERFORMED PRIOR TO HYSTEROSCOPY IN PATIENTS WITH ENDOMETRIAL CHANGES?

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Problem statement: Evaluation of transvaginal 3D multislice saline infusion sonohysterography for preoperative evaluation of the endometrial cavity changes. Methods: In this study 45 patients with suspected endometrial pathology were included. 17 patients with evident pathological changes on transvaginal 3D multislice ultrasound scans were not scheduled for further diagnostic SIS procedure; instead they were scheduled for hysteroscopy. The remaining 28 patients underwent the additional 3D multislice SIS procedure in order to evaluate the uterine cavity and any endometrial pathology. After introduction of the catheter into the uterine cavity, transvaginal 3D scan of the uterus was performed in order to evaluate the catheter position. Once we were assured that the catheter was in the correct position warm saline was introduced into the uterine cavity and during this procedure 3D multislice transvaginal scans of the uterus were performed after distension of the uterine walls. Scans were performed in sagittal direction of the uterus first and then, after additional injection of saline, in transversal direction of the uterus. The volume datasets were stored for further analysis of the uterine cavity pathology. Results: Mean patient’s age was 38,7 years. In two patient’s 3D multislice SIS revealed normal endometrium and uterine cavity. Single polyp, either originating from anterior or posterior uterine wall, was detected in 15 patients. Polyp diameter ranged from 4 mm up to 25 mm. Multiple endometrial polyps were detected in 2 patients. Endometrial polyposis was detected in 4 patients after performing 3D multislice SIS procedure. In two patients, endometrial adhesions were confirmed after SIS procedure. In three patients. Submucous myomas were confirmed during SIS procedure. Definitive hystopathological results confirmed endometrial polyps in 21 cases. In one patient Adenomyosis was found in the polyp tissue. Intracavitary fibroids were confirmed in two cases, and also submucous myomas in 2 cases. Conclusion: The 3D SIS is not time consuming, causes minimal discomfort to the patient and can be performed in office settings. 3D multislice SIS allows not only 3D reconstruction of the uterus and detected endometrial, intracavitary and submucosal pathology, but also imaging of sliced, sectional view of these changes and their association with the uterine wall and position in the uterine cavity. 3D multislice SIS enables precise location of endometrial changes and also correct measurement of the size and volume of diagnosed tumors. The obtained images during SIS procedure can be especially helpful in planning of the hysteroscopic operative treatment and removal of diagnosed tumours.

O33-1350
HOW MUCH DOMINANT FOLLICLES SHOULD BE INDUCED TO ACHIEVE A GOOD QUALITY EMBRYO AMONG POOR RESPONDERS DURING COH FOR IVF-ET? A RETROSPECTIVE STUDY

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14 mm follicles induced during ovarian stimulation and top quality embryo achievement among 35 years old poor responder women (N=35; Area under curve: 0.67; p=0.15; %95 CI=0.44-0.89) * width="913" height="679"

14 mm follicles induced during ovarian stimulation and top quality embryo achievement among ≥35 years old poor responder women (N=97; Area under curve: 0.71; p<0.004; %95 CI=0.58-0.84) * width="922" height="609"
transferrable embryos is a reality worldwide. Modification of ovulation
In this study, we have not observed the clinical benefit of increased
follicle number during COH among young poor responders unlike older
main goal at the end of an IVF-ET cycle as restriction for number of
Area under curve: 0.71; p=0.004; %95 CI=0.58-0.84). When women 14
selectively, the ROC curve analysis revealed a positive significant
(N=132; Area under curve: 0.50; p=0.96). Empty follicle syndrome and
relationship has been determined regardless of the women's age
total gonadotropin dose has been evaluated for achievement of at
mm follicles and top-quality embryo achievement following ovulation
IVF-ET procedures. Achievement of at least one TQE seems to be the
serum estradiol level has been found to be positively correlated with
follicle number have not been found to be correlated with achievement

O34-1341
BENEFICIAL EFFECTS OF ONION AND CINNAMON ON SEX HORMONES AND SERUM ANTIOXIDANT CAPACITY IN FEMALE RATS EXPOSED TO POWER FREQUENCY ELECTRIC AND MAGNETIC FIELDS

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Problem statement: In this study we investigated whether 50 Hz
power frequency electric field of 1.01×103 V/m and the magnetic field
flux density of 3 mT have effect on serum sex hormones and
antioxidant capacity and if Allium cepa and cinnamon can moderate
potentially adverse effects of power frequency electromagnetic exposure. Methods: Forty female Wistar rats, weighing 220 ± 10 g were
used for this study. Rats were allocated randomly to four groups. The first group (the control group) received 3 cc normal saline (0.9%)
daily for 6 weeks. The second group was exposed to power frequency of 3 mT for 4 h/day, 7 days/week for 6 weeks. The third group received Allium cepa (3 cc onion juice) and cinnamon (75 mg/kg body weight) daily for 6 weeks by Gavage method. The fourth
group was exposed to power frequency EMF of 3 mT for 4 h/day, 7
days/week and received Allium cepa (3 cc onion juice) and cinnamon (75 mg/kg body weight) daily for 6 weeks by Gavage method. Results: Levels of luteinizing hormone (LH), follicle-stimulating hormone (FSH)
and estrogen, significantly decreased in second group that exposed to
power frequency EMF of 3 mT and 103 V/m (P 0.05) and modified in
exposed rats which received Allium cepa and cinnamon (P 0.05). Conclusion: Power frequency electromagnetic field could adversely affect sex hormones and total antioxidant capacity (TAC) levels, but exposure to onion and cinnamon showed promising protective effects. Also, TAC levels were significantly decreased in exposed rats and were moderate in exposed rats received Allium cepa and cinnamon (P 0.05). COMPARISON OF SURGICAL TECHNIQUES FOR TREATMENT OF SUBMUCOUS MYOMA

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Many clinical studies demonstrate that removal of submucous fibroids
allows to improve the HMB and overcome infertility in most cases. Thus, optimization of treatment for submucous uterine fibroids is of
great clinical importance. Recently, an intrauterine shaver has been introduced into clinical practice for patients with intrauterine pathology.
In our work, we compare the traditional hysteroscopy and shaving of submucous fibroids. And, evaluate the effectiveness of
intrauterine injection of an anti-adhesive gel based on hyaluronic acid. In the first group (n = 48) the nodes were removed using a
resectoscope, in the second group (n= 19) - using an anti-adhesive
shaver. Three months after the intervention, patients of both groups underwent a control office hysteroscopy. All endoscopic manipulations
were performed using Karl Storz equipment. The effectiveness of the intrauterine adhesion barrier "Revireform" (NMTIC International, Russia) was evaluated among 22 patients of the first group. A total number of nodes removed by the resectoscope was 53. The gel was injected immediately after resection and evacuation of all resected pieces. Depending on the size of the uterine cavity 1 to 3
tablets were used. Control office hysteroscopy was performed for all 48 women 2 months after removal of the myomas. The results of the
control examination of the uterine cavity showed that out of 22 women who used hyaluronic acid, only one had intrauterine synechia. Among
26 patients who did not receive the gel, the synechia were found in three. Thus, in our observations, the intrauterine injection of hyaluronic acid reduced the incidence of intrauterine synechia formation from 7.7% to 4.5%. Using the intrauterine synechia was removed 20 nodes. Patients of the second group did not receive an anti-adhesive gel, but at control office hysteroscopy, no synechia was detected in any of the
cases. The median size of the nodes removed by the resectoscope and shaver was 3.1 ± 1.3 cm and 2.5 ± 0.8 cm, respectively. The size of the
largest node in each group was 4.4 and 3.1 cm, respectively. Obviously, the comparison of shaving and resection can very
subjective. To make the assessment more standardized for the
analysis we isolated cases with a single 2-3 cm submucous node of 0
and 1 type only, and analyzed separately the resectoscope and total
operating time. We demonstrated that for 0 type nodes, regardless of the diameter, the duration of removal with the shaver was
14% longer than with a resectoscope. As the volume of intramural component of the node increased the time difference decreases and is
about 7%. When comparing the total operating time, shaving remains
more advantageous. This is due to the structural features of the shaver, which allow the resected tissue to be evacuated simultaneously with resection, in contrast to the resectoscope. On average, the frequency of "insertion-extraction" of the instrument into the uterine cavity when using the shaver was -1.2, and when using a
resectoscope - 7.2 times. The fluid consumption with the shaver was
less than with the resectoscope by 27%, and the fluid deficit - was comparable in both procedures. We did not have any intra- or post-
operative complications in both groups. The hospitalization time was comparable in both groups (8-24 hours). Antibacterial therapy with cephalosporins of the third generation administered
by prophylactic scheme. No difference in the need for NSAID was revealed. Problem of HMB was resolved in 95.8% of cases. Among patients wishing to conceive, 67% became pregnant within the first cycle after treatment with the gel. In the first group. Thus, usage of hyaluronic acid after myoma resection can help to prevent intrauterine adhesion formation and improve fertility outcomes, as well as usage of shaver, as it doesn’t cause electric trauma to the endometrium.

SUBMUCOSAL MYOMA

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O36-1512
METABOLITES PROFILING IN CULTURE MEDIUMS OF DAY-5 HUMAN EMBRYOS

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Objective: To determine the changes of metabolomic profiles in embryonic culture mediums (ECMs) for the evaluation of quality and implantation potential of human embryos. Design: ECMs (163 in total) were collected on day 5 before transfer or cryopreservation. The part of embryos was used in preimplantation genetic screening for detection of aneuploidy karyotypes. Samples were divided on groups according embryo morphological classification (by Gardner), genetic analysis and implantation data. Methods: ECMs were diluted by methanol, precipitates were separated by centrifugation and metabolite production of individual embryo was analysed by LC-MS in positive mode. After peak detection and retention time alignment data was analysed using PCA algorithm. Results: MS fingerprinting analysis of embryo culture medium showed the significant differences between morphologically divided groups. Intragroup comparisons did not reveal differences between subclasses. Genetic screening of embryos found 33 aneuploid karyotypes. It was shown that chromosome number did not affect the metabolite profiles comparing with normal group. The culture media of embryos that were positive or negative for successful implantation showed specific signatures that allowed to distinguish embryos with different outcomes. Conclusions: The characterization of ECMs by LC-MS may facilitate more accurate selection of the best embryo for the implantation, improving single-embryo transfer and thus eliminating the risk and undesirable effects of multiple pregnancies.

O37-1444
ABDOMINO-PELVIC PACKING REVISITED: AN OVERLOOKED TECHNIQUE FOR MANAGING INTRACTABLE OBSTETRIC HAEMORRAGE

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Problem statement: Surgical packing is no longer seen as a “bail out” technique for the less skilled obstetrician who is unable to control haemorrhage using conventional surgical techniques such as suturing. Rather, this skill should be a routine addition to the armament of current practising clinicians. We present a case series of 7 patients in which packing was successful in managing postpartum haemorrhage (PPH) and describe a simple technique of packing using 4x4 inch gauze. Methods: Between 2009-17, data of women who underwent abdomino-pelvic packing for intractable postpartum bleeding were collected manually from the labour ward delivery records. These included both pre-and postpartum hysterectomy cases. The primary outcome was success of intraabdominal packing (without need for additional procedures), and secondary outcomes included need for transfusion, length of stay, and postnatal complications such as pyrexia. Results: Seven women underwent abdomino-pelvic packing for persistent vascular ooze following delivery; of these, 3 women had already had peripartum hysterectomy for massive PPH, while in the remaining 4, bleeding stopped with packing without having to resort to definitive surgery (one required concomitant intrauterine Bakri balloon tamponade). All 7 women (mean age 39.42 years) had had caesarean section deliveries with a mean estimated blood loss of 4357 mls and mean units transfused of 7.85 units of packed cells. All women had clinical signs of impending coagulopathy when the decision to pack was made. The mean shock index (a measure of haemodynamic stability with a normal range of 0.5-0.7) at the time of decision to pack was 0.93. The mean number of packs inserted was 6. The mean duration of the packs being in situ was 33.71 hours and the mean length of stay following pack removal was 56.77 hours. None of the patients had sepsis or pyrexia following pack removal.

Conclusion: Continued bleeding before and after peripartum hysterectomy was managed by abdomino-pelvic packing in all 7 cases in this series: this allows supportive correction of hypothermia, tissue acidosis, pending coagulopathy, and hypovolaemia. Correct technique of abdomino-pelvic packing is an essential skill in managing massive obstetric haemorrhage in addition to uterine tamponade, compression sutures, and peripartum hysterectomy.

O38-1110
STUDY ON APOPTOSIS OF NEURONS IN MOUSE CEREBRUM BY USING TUNEL AND EXPRESSION OF CASPASE3, 9 AFTER LIVE THREE-DIMENSIONAL ULTRASOUND RADIATION

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Problem statement: Prenatal ultrasound diagnosis is always a controversial problem, especially 3D and 4D apployement. Does it harm to fetus? Does it provide correct images for medical workers? We studied the effect of live three-dimensional ultrasound radiation on apoptosis of embryo-cerebral cells and expression of caspase3, caspase 9 in late pregnant mice with animal experiment. Methods: Thirty pregnant mice were randomly divided into 6 groups,
unexposed group, pseudo-exposed group, 5min-exposed group, 10min-exposed group, 20min-exposed and 30min-exposed group, and 5 min group. Exposed under the system’s probe for 5 to 30 min on pregnant day 14. On the 10th day after birth, the pups of each group were perfused and fixed with 4 % paraformaldehyde; brain slices were made and stained with HE or terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling (TUNEL). Colorimetric method was used to measure caspase 3.9 activity. Results: 1) Tunel method: comparing with un-exposed group and pseudo-exposed group, positive rate of apoptosis in 5min-exposed group had no significant statistically difference (P>0.05), but in 10min-exposed group, apoptosis positive cells were increased and the findings became remarkable in 20min-exposed and 30min-exposed groups which showed a significant statistically difference (P<0.01) compared with other four groups. 2) Caspase3, 9 positive cells were detected in all groups and were remarkably increased in ultrasound exposed group. Conclusion: Live three-dimensional ultrasound irradiation for longer duration may result in higher caspase3.9 activity that lead to excessive neuron apoptosis in fetal mouse cerebrum.

O39–1542
OUTCOMES OF COLORECTAL ANASTOMOSSES DURING OPERATION FOR GYNECOLOGIC MALIGNANCY
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Purpose: Many colorectal surgeons are frequently requested for cooperation during surgery for gynecological malignancy, and sigmoid and rectal resection are commonly performed due to cervical or cytodestruction for ovarian cancer. This study was designed to evaluate the feasibility of primary anastomosis after colorectal resection than diverting colostomy.

Methods: From March 2010 to August 2017, 85 consecutive patients were performed colorectal resection for primary or recurrent gynecological malignancy. Twenty-three patients were received diverting ileostomy or colostomy and the other 62 patients were performed primary anastomoses reconstruction.

Results: The mean age of the patients was 57.6 years (range, 24-83), and 69 (81.7%) of patients were ovarian cancer patients. The operation time for colorectal resection was 75 minutes (range, 35-137 min). The intraoperative estimated blood loss was 1020 ml, and 63 patients (74.3%) received packed RBC blood transfusion. There was no significant difference in demographics, intraoperative parameters, and postoperative complications. Conclusions: There were no complications and peroperative complications between two groups. Anastomotic leakage was developed in two patients (3.2%) of primary anastomosis group.

Keywords: Colorectal, anastomosis, Colostomy, Gynecologic, malignancy.

O40-1572
ROMA WOMEN - AN INSIGHT ON THEIR STANDPOINTS REGARDING REPRODUCTIVE HEALTH
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Problem statement: The Roma women’s care for reproductive health is changing only very slowly under the influence of other cultures. The Roma women have an inferior position in their families, which is even further worsened by a lower level of education, unemployment, poverty, etc. The specific needs of Roma women, problems and expectations regarding reproductive health have not been sufficiently researched.

Methods: A prospective interventional research was carried out. The Roma women were interviewed. Their answers provided an insight into their viewpoints regarding reproductive health, the behaviour of health care professionals towards Roma women and the quality of the services of the women’s clinic. On the basis of the results of the qualitative analysis of the interviews, an educational leaflet was prepared. The leaflet, which was explained to each particular woman that decided to participate in the research, helped raise the Roma women’s awareness regarding reproductive health. They become more familiar with different ways of mass communication, time and place for preventive check-up appointments. Results: The results of the first part of the research have shown that the Roma women are still tightly connected to their cultural traditions and which greatly influence their need for reproductive health. But significant changes can be observed in terms of their views becoming more and more similar to the majority population, which is particularly apparent in younger generation. The usefulness of the leaflet is manifest in the number of leads from the Roma to help and the time spent in the Roma women’s clinic (63%) and in the training for finding a suitable time to see a doctor and make an appointment (73.5%). The answers of women in childbearing age are different from the other groups which showed a significant statistically difference (P<0.05), but in whole response of the target group (at least partial) and the ability of the women to identify with the materials (in this case women in childbearing age.)

Conclusion: Health care professionals report that raising the health literacy marked the beginning of positive changes in the reproductive care of Roma women.

O41-1552
SERUM BISPHENOL A (BPA) CONCENTRATION IN PREGNANT WOMEN AND UMBILICAL CORD AND ITS IMPACT ON TESTIS DEVELOPMENT AND FUNCTION OF THEIR MALE NEWBORNS
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Problem statement: Epidemiological studies and clinical observations have found that female fertility has declined over the past few decades. Endocrine-disrupting compounds (EDCs) which are capable of modulating and disrupting the function of the endocrine system have recently gained lots of concern. They can mimic or block natural hormones and there is a ubiquitious exposure of general population to EDCs, including pregnant women. Bisphenol A (BPA) as a model of EDCs, as a xenoestrogen is widely used in manufacture of polycarbonate plastics, epoxy resins, dental sealants and can lining. It easily regulates hormones, interferes with cells, and therefore environmental BPA exposure can influence testis development and can cause male infertility in the future still remains open.

What did we do: The aim of the study was to investigate whether Polish pregnant women and their male newborns are exposed to BPA and if so, to what extent. I also wanted to find a correlation between BPA in serum of pregnant women, umbilical cord and placental tissue. Moreover, I wanted to find if concentration of BPA in umbilical cord can influence the hypothalamus-pituitary-testicular axis. Blood from 117 mothers and 117 healthy male newborns was collected into BPA-free tubes and after centrifugation stored in -80C along with placental tissue placed in BPA-free tubes. Antropomorphical parameters were evaluated from newborn (anogential distance, SPL, head circumference, height, birth weight). The BPA levels in sera and cord blood were measured using a liquid chromatography (LC200, Eksigent) and mass spectrometry (TripleTOF 5600+ [AB SCIEX, USA], Amhr, TGF-β2 (out but below limit), Inhibit B (inhibit B2 in serum from umbilical cord using MDS ACQUITY M200 Pro microplate reader (Tecan, Switzerland) using commercial kits: [AMH Gen II ELISA [Beckman Coulter, USA], Inhibit-B EIA Kit [Sigma, USA], TGF-β2 ELISA [USA], Inhibit-B ELISA [USA], according to the manufacturer’s protocols. Steroid hormones were measured using a liquid chromatography and mass spectrometry (LC-MS/MS 8040 [Shimadzu, Japan], LH and FSH using immunochemical analyzer Cobas e411 (Roche Diagnostic, USA) with commercial sets of reagents and according to the manufacturer’s instructions.

Results of the study:
PREGNANCY OUTCOME AFTER RECENT LAPAROSCOPIC MYOMECTOMY – A CASE REPORT

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Problem statement: Uterine myomas are clinically observed in 20% to 25% of women of reproductive age. Reflecting the growing trend of delayed childbearing, the incidence of pregnant women with uterine myomas or who have undergone surgical treatment is gradually increasing. Leiomyomas are an infrequent primary cause of infertility and are considered as a sole cause in a small percentage of infertile patients. Laparoscopic myomectomy (LSM) or abdominal myomectomy (AM) remains the most widespread treatment. Pregnancy after myomectomy may increase the risk of intrauterine adhesions, miscarriage (13%), preterm birth (10.4%), abnormal placentation, cesarean section and uterine rupture (0.6% if AM, 1.2% if LSM). Above all, uterine rupture during pregnancy is a cause of maternal and fetal monitoring with antenatal corticosteroid therapy for fetal lung maturation, cesarean section and uterine rupture (0.6% if AM, 1.2% if LSM). Above all, uterine rupture during pregnancy is a cause of maternal and fetal mortality (33%). The incidence of uterine rupture per pregnancy may vary per the size, type, location of the myoma, in addition to the suture technique used for myomectomy and the interval of subsequent pregnancy and delivery. Methods: We performed a clinical case retrospective review. Results: A.R.O., 38 years old, primipara, caucasian, with a spontaneous conception one month after laparoscopic myomectomy where an intramural fibroid measuring 5 x 7 cm located on the left side of uterine fundus was removed, with entrance to the uterine cavity. She had a history of primary infertility for 1.5 years. After adequate counseling and explanation of the potential risk of uterine rupture occurring during a pregnancy after myomectomy, the couple chose to continue the pregnancy. Regular check-ups were performed during first and second trimesters, without complications. At 28 weeks, she had an MRI for placental evaluation: myometrium indefiniteness in the left antero-lateral wall, suggesting a possibility of placenta accreta. She was admitted at 34 weeks for maternal and fetal monitoring with antenatal corticosteroid therapy for fetal maturation. A caesarean section was performed at 36 weeks, with the delivery of a healthy male newborn, weight 2520 gr, 10 months after laparoscopic myomectomy. Both infant and mother had no complications following delivery.

Conclusion: Myomectomy for intramural and subserosal fibroids may significantly improve the reproductive performance of women presenting with infertility. An appropriate time interval of 6-24 months between myomectomy and pregnancy is important as stated in the literature. Given the potential impact of uterine rupture to mothers and their fetuses, it is essential that obstetricians perform careful follow-ups for women, especially in the third trimester where most of the ruptures (80%) occur during the preterm period (between 28 and 36 weeks’ gestation).

EMOTIONAL INTELLIGENCE IN WOMEN UNDERGOING INFERTILITY TREATMENT: IS THERE A RELATION WITH ETIOLOGY OF INFERTILITY?

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Study question: Does neonatal outcome, including congenital malformations in children born after ART differ from children born after natural conception (NC)?

Study design, size, and duration: It was a retrospective study carried out on 5578 IVF/ICSI cycles in a referral infertility center, Royan Institute, in Tehran, Iran as well as 5840 NC data from a general hospital in Tehran and Tabriz Registry of congenital anomalies. This is state-specific information as a part of large study comparing 5 years Royan ART outcomes.

Participants/materials, setting: The study group consisted of 5560 embryos transfer out of 5578 cycles in addition to all NC newborns. Maternal ages were 20 – 42 years for both groups. However, cycles resulted in No oocyte, No ET (embryo transfer), all freeze were excluded. Neonatal outcomes and congenital malformations were analyzed for term delivered singletons. Main results and the role of chance: A total of 5578 ART cycles performed in Royan infertility clinics. These cycles resulted in 3640 embryo transfers. Among cycles, the number of embryos transferred was 1-3 with respect to maternal ages and embryos quality. Sixty-three percent (2292 cycles) were failed and 37 % (1343 cycles) succeed which lead to 50% term delivery (667 infants). Among infants conceived with ART, 12% were born in multiple deliveries. After adjustment for maternal age, parity, family history and ethnicity, singleton infants born after ART had elevated risks for all outcomes. 2.55% (17 infants) out of 88% singleton (586 infants) versus about 2.8% (p=0.33) in natural conception were suffering from various type of congenital anomalies. Overall, among infants conceived with ART, 27% (6 infants) had Cardiac disorders, 14% (3 infants) urinary tract disorders and 14% (3 infants) metabolic disorders. Other abnormalities were observed in 45% remained population including muscular, visual, genital, pulmonary and genetic disorders. However, the prevalence of pregnancies complicated by congenital anomalies for NC newborns including heart anomaly (2%), limb deformation (10.3%), spinal...
muscular atrophy (2.5%), neural tube defects (22.6), chromosomal anomaly (2%) etc. was estimated 2.8 – 3.1 percent of total births in the region, due to unexplained causes. 

Conclusions: assisted reproductive techniques could be a foremost risk factor for adverse pregnancy outcome in ART singleton births such as heart anomalies (27% vs. 2%), heart defects, neural tube defects, etc. was estimated 2.8 – 3.1 percent of total births in the region, due to unexplained causes.

O4S-1205
RISK FACTORS FOR UNEXPECTED FOLLICULAR STAGNATION AND TREATMENT OUTCOME WITH LH SUPPLEMENTATION
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Problem statement: During controlled ovarian stimulation (COS), unexpected steady response, referred to as follicular stagnation (FS), may be encountered in 12-14% of normo-responder patients. There is paucity of data on the prevalence, risk factors and management of FS in unselected normo- and hyper- responder patient population.

Methods: Retrospective cohort study. Inclusion criteria were: female age 40 year-old, antral follicle count (AFC) ≥10, GnRH agonist or antagonist cycle and starting COS with recombinant-FSH (rec-FSH) only. Exclusion criteria were: azospermia and pre-implantation genetic testing cycles. A total of 650 consecutive couples undergoing IVF/ICSI cycle (n=650) were included. Treated cycles were divided into two groups based on two leading oocytes (PCOS) (n=116), male-factor (n=255), and tubal (n=79) infertility in-between January-2014 and January-2017 were enrolled with their chronologically first cycles. Rec-FSH was started at a dose of 150-200 IU/day in all cycles until the first monitoring visit on Day 6 of stimulation. A total of 74 (8.7%) FS cycles were identified. Follicular stagnation was defined as i) estradiol (E2) ≥200pg/mL, and ii) no follicle >10mm by day 9/10 of stimulation. The aim of this double blind randomized sham-controlled trial was to evaluate the effectiveness of PRP intrauterine infusion for treatment of thin endometrium.

Results: The overall prevalence of FS was 8.7%. Among the demographic features, only body-mass index (BMI) was significantly different between the FS and control groups. FS was significantly more common in PCOS patients [15.3%, p=0.02]. Despite statistical significant differences in some of the COS characteristics and embryological data, ongoing pregnancy rates per started cycle were comparable between the two groups (Table 1). When etiology of infertility, female age, BMI, duration of infertility, AFC, COS protocol, and starting rec-FSH dose were included in the logistic regression model, PCOS remained to be the only significant independent predictor of FS (OR= 2.5, 95%CI 1.1 -5.4, p=0.017). Cycle cancellation was 2-fold more common with FS. When FS is encountered, with LH supplementation, despite longer stimulation (≈3 days), with less number of oocytes (≈2), ongoing pregnancy rates per started cycle were comparable between the two groups. Recombinant or urinary LH (75 IU daily) was supplemented as a routine policy when FS was encountered. Patients with no FS served as the control group. Ongoing pregnancy (12 week of gestation) was taken as primary outcome measure. Results: The overall prevalence of FS was 8.7%. Among the demographic features, only body-mass index (BMI) was significantly different between the FS and control groups. FS was significantly more common in PCOS patients [15.3%, p=0.02]. Despite statistical significant differences in some of the COS characteristics and embryological data, ongoing pregnancy rates per started cycle were comparable between the two groups (Table 1). When etiology of infertility, female age, BMI, duration of infertility, AFC, COS protocol, and starting rec-FSH dose were included in the logistic regression model, PCOS remained to be the only significant independent predictor of FS (OR=2.5, 95%CI 1.1-5.4, p<0.017). Conclusions: Polycystic ovary syndrome is the only significant predictor for FS. Cycle cancellation is 2-fold more common with FS. When FS is encountered, with LH supplementation, despite longer stimulation (≥3 days), with less number of oocytes (>2), ongoing pregnancy rates per started cycle were comparable. However, the impact of FS on cumulative pregnancy rates should be further studied.

O4G-1240
EFFECTS OF AUTOLOGOUS PLATELET-RICH PLASMA ON ENDOMETRIAL EXPANSION IN PATIENTS UNDERGOING FROZEN-THAWED EMBRYO TRANSFER: A DOUBLE BLIND RANDOMIZED SHAM-CONTROLLED TRIAL
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Problem statement: Adequate endometrial growth is principal for implantation and pregnancy. Endometrial thickness is associated with lower pregnancy rate in assisted reproductive technology (ART). Some frozen-thawed embryo transfer (FET) cycles are cancelled due to inadequate endometrial growth. The aim of this double blind randomized sham-controlled trial was to evaluate the effectiveness of PRP intrauterine infusion for treatment of thin endometrium.

Methods: Between 2016 and 2017, a total of 30 patients who had a history of cancelled FET cycle due to thin endometrium (7mm) were randomized to PRP and sham-cather groups. Hormone replacement therapy (HRT) was performed for endometrial preparation in all participants. PRP intrauterine infusion or sham-cather was performed on day 11-12 due to thin endometrium and it was repeated after 48 h if necessary. Results: Endometrial thickness increased at 48 h after the first intervention in both groups. All participants needed second intervention due to inadequate endometrial expansion. After second intervention, endometrial thickness was 72±1.8 and 57.6±9.7 mm in PRP group and sham-cather group, respectively. There was significant difference between these two groups. (p<0.01). Ongoing pregnancy transfer was done for all patients in PRP group and just in three cases in sham-cather group. Chemical pregnancy was reported in six cases in PRP group and one case in sham-cather group. Conclusion: Per this trial, it seems that PRP was effective in endometrial expansion in patients with persistent thin endometrium.

O4T-1550
ULTRASOUND GUIDED EMBRYO TRANSFER: SUMMARY OF EVIDENCES TO CLOSE THE OPEN DEBATE AND UNLOCK NEW PERSPECTIVES. LITERATURE REVIEW AND META-ANALYSIS
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Problem statement: Despite the supposed advantages of ultrasound guidance during embryo transfer and the large number of clinical trials published on this topic, recommendations for use of this technique in daily clinical practice are still debated. The reasons may be related to some limitations that can be found in clinical studies and in published reviews. Trying to overcome these limitations, we designed a meta-analysis, basing exclusively on evidence from published RCTs, with the aim of analysing the impact of trans-abdominal ultrasound guidance versus trans-vaginal ultrasound guidance versus trans-abdominal approach on IVF outcomes. Moreover, we provide an extensive systematic review in order to collect and analyse all strengths and limitations of today's techniques for embryo transfer and to unlock new future perspective.

Methods: This is an updated systematic review and meta-analysis aimed to assess a body of evidence concerning the use of US guidance for ET and to provide an appraisal of future perspectives in US guided ET techniques. The present study consists of three major sections according to different outcomes: In the first section, we performed a meta-analysis of all published RCTs comparing the effects of transabdominal(TA)-US guided ET versus TA-US guided ET. In the second section, we meta-analyzed data from RCTs comparing the results of transvaginal(TV)-US guided ET versus TA-US guided ET. In the third section, we conducted an extensive qualitative analysis of all available trials (independently from study design) evaluating comparisons between different US guided ET techniques. (TA-US versus CT, TA-US versus TV-US and 2D-US versus 3D-US). Results: Basing on 14 randomized trials, we found moderate quality of evidence supporting beneficial effects of trans-abdominal guidance application during embryo-transfer versus conventional clinical-touch in term of both clinical pregnancy rate (1,48).
levels and an increase in oxidative stress. Our results suggest that a compensatory mechanism caused by a possible decrease in vitamin E group are superior to the control group probably due to a new transversion (A/T) with LR compared with oocyte donors. A new transversion (A/T)

NEFA, TG and serum NEFA were significantly higher in young women donors (14,4±0,5 ng/mg of proteins). Concentrations of follicular fluid (15,6±1,4 ng/mg of proteins) (p<0,02); (18,9±2,9 ng/mg of proteins) and serum afamin concentrations (24,1±4,0 ng/mg of proteins) than did those without sperm alterations (18,9±2,9 ng/mg of proteins) (p<0,002). In the group of patients, the levels of TG and NEFA in (10,6±1,4 ng/mg of proteins) (p=0,00001; I2=0%). We did not found significant differences in terms of miscarriage and ectopic pregnancy rate, even if evidences are of low and very low quality respectively. Concerning trans-vaginal versus trans-abdominal approach, basing on 3 randomized controlled trials, we found low quality of evidence supporting the equivalence of these techniques in term of clinical pregnancy rate (OR 1.05; 95% CI 0.76-1.43; p>0.7; I2=0%) and ongoing/live birth rate (OR 1.18; 95% CI 0.68-2.04; p=0.30; I2=0%).

Conclusion: Considering that ultrasound scan is a widely available and cost-effective tool in gynecology and human reproduction, its routine initiation during ET appears to have more benefits than criticisms and should be reconsidered in clinical practice of fertility care providers. Further large RCT are needed, instead, to better understand strengths and weaknesses of this technique on events at a lower frequency.

A further large RCT are mandatory to explore the possible benefits of new tools like TV-US and 3D-US.

O48-1248
ELEVATED LEVEL OF AFAMIN AND LIPID DYSREGULATION IN SEMINAL AND FOLLICULAR FLUIDS COULD BE RELATED WITH MALE AND FEMALE INFERTILITY
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Introduction: The plasma glycoprotein afamin has been previously identified and described as an alternative carrier protein for vitamin E in eukaryotic cells such as plasma, seminal fluid and follicular and seminal fluids. FVEBN mice overexpressing human afamin were demonstrated to have higher concentrations of total cholesterol and triglycerides in plasma in comparison with sex-matched wild-type animals. However, for this mouse model no statistically significant difference was established between the levels of afamin in infertile and fertile men and women comparing with sex-matched wild-type controls. The aim of this study was to assess the level of afamin in semen, seminal follicular fluid and men and women comparing with controls and to state the association between the single nucleotide polymorphisms (SNPs) of the 5’-translated region of the afamin gene (AFM) and male and female infertility.

Objectives: The present results suggest that GDM and PE are associated with specific alterations in the placental miRNA expression profiles revealed by next generation sequencing (NGS) in pregnancies with GDM complicated or not with PE, n=56
Methods: The study was performed on placenta samples from four groups of women: patients with GDM (n= 2), PE (n=4), GDM with PE (n=4) and with normal pregnancies (n=6). miRNA expression profiles in placenats were investigated using an Ion Torrent sequencing system. Sequencing data were processed using a comprehensive analysis pipeline for deep miRNA sequencing (CAP-miRseq). Statistical analysis was performed with Statistica 10.0 (StatSoft, Inc., Tulsa, OK, USA).

Results: The expression of hsa-miR-4532 (p<0.0001, FDR = 0.0008), hsa- miR-34c-3p (p=0.001, FDR = 0.0033), and hsa-miR-193b-5p (p=0.001, FDR = 0.0139) in pregnancy complicated by PE, without of GDM.

Conclusions: The present results suggest that GDM and PE are associated with specific alterations in the placental miRNA expression profiles. Further studies are needed to verify the role of these microRNA in molecular mechanisms underlying GDM and PE pathogenesis.

OSO-1584
LAPAROSCOPIC PERITONEAL VAGINOPLASTY (LUOHU II PROCEDURE) IN MRKH SYNDROME: 10 YEARS’ EXPERIENCE IN 885 PATIENTS
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Problem statement: Numerous nonsurgical and surgical techniques have been described for the creation of a neovagina in patients with Mayer–Rokitansky–Küster–Hauser syndrome (MRKH syndrome) which suggests there is no single superior surgical approach. This study aims to demonstrate that a novel laparoscopic peritoneal vaginoplasty (Luohu II procedure) randomly selected frequency-matched age-comparable healthy women were serving as controls (n =653).

Results: Laparoscopic peritoneal vaginoplasty (Luohu II procedure) was successfully performed in all 885 patients. The mean operative time and intraoperative blood loss were, respectively, 57.4±20.5 minutes and 13.0±9.7 ml. Median follow-up for 8 years (range 8–9) months, mean functional neovaginal was 9.9±0.6 cm, including those which had no sexual intercourse. Vaginal biopsy showed complete epithelialization of vaginoplasty. A successful outcome was defined as surgical success, as assessed by the FSFI questionnaire, was achieved in 96.7% of patients. The FSFI scores did not differ significantly between patients with MRKH syndrome and controls. No common long-term complications were observed.

Conclusions: To the best of our knowledge, this study is the largest cohort study of patients with MRKH syndrome. Our technique (Luohu II procedure) creates a neovagina of adequate size and secretory capacity, with excellent results. Further studies are mandatory to explore the possible benefits of new tools like TV-US and 3D-US.
traumatic technique that has satisfactory anatomical and functional outcomes for patients with MRKH syndrome.

**OS1-1585**

**CLINICAL ASPECTS OF MAYER-ROKITANSKY-KUSTER-HAUSER SYNDROME IN A CHINESE POPULATION: AN ANALYSIS OF 885 PATIENTS**

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**Problem statement:** Mayer-Rokitansky-Kuster-Hauser Syndrome (MRKH; OMIM 27700) is characterized by congenital aplasia of the uterus, cervix, and upper two-thirds of the vagina during fetal development. The incidence of the syndrome is 1/4500 female newborns. The aim of this study was to use the VCUAM classification system to describe the spectrum of congenital malformations in a large cohort of 885 patients affected by MRKH syndrome. **Materials and methods:** From January 2007 to December 2016, a total of 885 patients with MRKH syndrome characterized by primary amenorrhea were treated in the Department of Obstetrics and Gynecology at the University Hospital of Shenzhen (China). Clinical examinations, abdominal or perineal/tectal ultrasound, magnetic resonance imaging, hormonal profile, karyotype and laparoscopy were collected. **Results:** We identified associated malformations in 98 out of 885 (11.1%) cases of MRKH. The 885 patients could be grouped into hormonal phases: 33.7% follicular, 35.2% luteal, and 31.1% ovulatory. The major karyotype of MRKH patients was 46, XX; abnormal karyotypes were found in 3 cases. **Conclusion:** A lower proportion of associated malformations were found compared to current literature. Ovarian development. The incidence of the syndrome is 1/4500 female newborns. The aim of this study was to use the VCUAM classification system to describe the spectrum of congenital malformations in a large cohort of 885 patients affected by MRKH syndrome.

**OS2-1376**

**CEPHALIC LENGTH MEASUREMENT IN NON-PREGNANT WOMEN – ARE WE OVERDIAGNOSING SHORT CERVIX IN PREGNANCY?**

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**Problem Statement:** As far as we know, there are no percentile curves of cervical length defined for the non-pregnant population. Our objective is to define the percentile curves of cervical length in non-pregnant women, as well as the clinical factors that influence its size. Defining these curves will help to understand if the short cervix cutoff (25 mm) used in the pregnant population in our institution is acceptable, given the 10th percentile of the cervical length found in our non-pregnant population. **Methods:** Retrospective study, conducted between January and June 2017, which included all women undergoing gynecological ultrasound in the Ultrasonography Unit of a tertiary hospital. The clinical data of the included women were obtained through the consultation of their clinical process. **Results:** A total of 1591 women were included, with a mean age of 48.5 years (SD 14.4 years). Of the women included, 65.7% (n=942) were premenopausal and 34.3% (n=549) postmenopausal. 20.2% (n=293) were nulliparous, 28.2% (n=409) were primiparous, 41.6% were multiparous (n=748), and 27.7% (n=286) of the women had at least one cesarean delivery. Regarding the gynecological history, only 1.8% (n=27) had previous conization. The median cervical length was 27 mm (10th and 90th percentiles are 21 and 33 mm respectively). Excluding postmenopausal women, the median cervical length was 28 mm (10th and 90th percentiles are 23 and 34 mm respectively). There are statistically significant differences in the length of the cervix between premenopausal and postmenopausal women (median 26.4 vs 27.4 mm, p=0.001). Women with previous cesarean section and without previous cesarean section (median 28.8 vs 27.3 mm, p=0.001), and women with previous conization compared to women without previous conization (median 28.8 vs 27.3 mm, p=0.001) were statistically different. Age also seems to influence the length of the cervix, with the length of the cervix increasing in women up to 50 years of age and progressively decreasing from that age, which agrees with a higher prevalence of preterm delivery in very young women (40 years). **Conclusion:** The 10th percentile of the cervix length found in the non-obstetric fertile population (23 mm) was lower than the cutoff used in pregnant women (25 mm). In addition, statistically significant differences were found in different variables (menopause, parity, previous cesarean section and conization). However, although there are statistically significant differences individually in these variables, the differences seem to be too small to be clinically significant, given the interobserver variability in the measurement of the cervix. Besides the structural and dynamic changes that a woman may suffer physiologic changes during pregnancy, which makes it difficult to compare the results. Further studies are needed to support these findings, preferably by comparing the measurement of the cervix in the same population of women before and during pregnancy.

**OS3-1400**

**STILLBIRTH ANALYSIS: A 10-YEAR RETROSPECTIVE STUDY IN A PORTUGUESE MATERNITY**

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**Problem statement:** Stillbirth is a major but often overlooked public health problem, as it is a key outcome indicator of gestational and intrapartum care. The implementation of protocols to identify the associated causes and risk factors is necessary to establish prevention strategies and reduce fetal mortality rates. The aim of the current study is to review, analyze and classify the cases of stillbirths (after 24 weeks of gestation) that occurred from 2007 to 2016 in a Portuguese maternity. **Methods:** Data from all the cases of stillbirths that occurred in our hospital between 2007 and 2016 were retrospectively collected and analyzed. ReCoDe classification was applied to identify relevant conditions present at the time of fetal death. As defined by Gardosi, the primary condition categorized should be the highest order of the ReCoDe classification. Fetal growth restriction was defined as a birthweight below the 10th percentile. **Results:** During the 10-year studied period, there were 78 stillbirths from a total of 27793 births. The mean stillbirth rate (SBR) was 2.81 per 1000. This rate was highest in 2009 (SBR 4.87%) and has been declining since then (SBR in 2016: 1.62%). The mean maternal age was 27.5 (range 17-45) and 55.1% of the cases were primiparous. In 13 cases, women had history of previous pregnancy loss or neonatal death and 28.2% had relevant previous medical history, notably diabetes mellitus and chronic hypertension. Of the total of 78 cases studied, 44.9% had pregnancy surveillance at primary care health, 32.1% in our hospital and in 4 cases the pregnancy was previously unknown. In 10.7% of the cases gestational diabetes was diagnosed and 13.3% developed gestational hypertensive disorders. In terms of gestational age, 30.8% occurred between 24 and 28 weeks of gestation, 12.8% between 29-32 weeks, 26.9% between 33-36 weeks and 25.6% at term. Autopsy and placental examination were performed in all cases. Per ReCoDe classification, the most frequent primary conditions associated with stillbirth were fetal growth restriction (category A7: 26.7%), abruptio placentae (category C1: 16.7%) and placental insufficiency/infarction (category C4: 11.5%). In 9.0% of the cases, no relevant condition was identified and in 6.4% a lethal congenital malformation was diagnosed. In the fetal growth, restricted subgroup, the most common underlying condition was placental insufficiency/infarction. **Conclusion:** Measurement of the outcome of care is crucial to the development of safe and high-quality healthcare services. ReCoDe classification system has the advantage of highlighting the important association between fetal growth restriction, placental insufficiency/infarction and stillbirth. Per these findings, the prompt diagnosis of fetal growth restriction is of major importance in the prevention of stillbirth. Continuous research on placenta pathology could be an important tool to further reduce fetal mortality.

**OS4-1409**

**EXPERIENCE OF SIGMOID COLON VAGINOPLASTY IN VAGINAL AGENESIS WITH FAILURE OF PREVIOUS SURGICAL PROCEDURES**

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Problem statement: The use of sigmoid colon vaginoplasty has been shown to have excellent results with natural lubrication and without the need for regular dilatation. The procedure is expected to have more advantage in patients with failure of previous other surgical procedures.

Methods: A retrospective study was conducted in patients who underwent sigmoid colon vaginoplasty for vaginal agenesis at Dr. Sandjilo Hospital, Yogyakarta, Indonesia in 2017. The medical records were reviewed for medical history, surgical technique, complications, and outcomes. The procedure was performed using laparotomy approach. A longitudinal incision was made in median line from suprapubic area until umbilicus. About 10-15 cm segment of sigmoid colon was resected with preservation of feeding artery from the branch of sigmoid artery. The remaining colon related to end to end anastomosis using 2-0 absorbable suture. The rectovesical tunnel was produced by making incision in vaginal vestibule posterior to the urethra and then extended using bouginage until it reaches the peritoneal cavity. The distal sigmoid graft was mobilized through the rectovesical tunnel and the edges were sutured to the vaginal pit using 2-0 interrupted absorbable sutures. A 2-cm longitudinal incision was made in the lower part of uterus and connected to the proximal part of sigmoid graft with end to side anastomosis using 2-layered interrupted 2-0 absorbable suture. The lumen of the sigmoid graft was packed with gauze pieces for 48 hours postoperatively.

Results: There were 2 cases of complete vaginal agenesis in 2017. Both patients were 21 years old and previously underwent Mischod vaginoplasty in combination with amnion graft. Both patients experienced recurrent blockage of neo vagina and underwent hysterectomy drainage and recanalization surgery one time (patient A) and four times (patient B). During surgery, the length of the sigmoid graft was 15 cm in patient A and 12 cm in patient B. The longitudinal incision in the uterus were made in the right lateral part in patient A and in the posteriorinferior part in patient B. Parenteral nutrition was given for 5 days' post operation. Patients were discharged after 7 days' hospitalization. Patients were educated to maintain sanitation in external genital area and return to the hospital once a month for follow up. There was no major complication during hospitalization and postoperative period. Both patients had experienced menstruation twice, with normal flow and duration without dysmenorrhea. A slightly excessive mucus discharge was experienced in the first month but it disappeared in the second month. Neovagina was cosmetically acceptable to the patients. The edge of sigmoid colon graft and vaginal pit had fused. Sexual function cannot be assessed because both patients had not yet married. From ultrasonography, the apical part of neovagina had diameter of 1.7-1.9 cm, and the lumen of the neovagina which attached to the uterus had diameter of 1.7-1.9 cm, and the lumen of the distal neovagina had diameter of 1.5 cm. Both patients were comfortable with the surgery result and had more confidence because of the surgery result and had more confidence because of the surgery result and had more confidence because of the surgery result and had more confidence because of the surgery result. Conclusion: Sigmoid colon vaginoplasty is a safe and effective procedure for vaginal agenesis with failure of previous other surgical procedures. It has good cosmetic results, low complications rate, and high acceptability.
THE RATES OF PRECONCEPTION CARE IN TURKISH PREGNANT WOMEN, AFFECTING FACTORS AND THE QUALITY OF CARE

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Problem Statement: Preconception care is the provision of biomedical, behavioural and social health interventions to women and couples before conception occurs. It aims at improving their health status, and reducing behaviours and individual and environmental factors that contribute to poor maternal and child health outcomes. The aim of the study was to estimate the rates of preconception care in Turkish pregnant women, the affecting factors and the quality of care.

Methods: The cross-sectional study was carried out in the clinics of Department of Obstetrics and Gynecology of a State Hospital in the east of Turkey between February 2017 and July 2017. Between the dates mentioned, 1050 pregnant women who applied to the related clinics and participated in the research and became pregnant without taking any infertility treatment became the samples of the study. A “Survey Form” prepared by the researchers in accordance with the study objectives was used in the collection of the data.

Results: It was found that 30.9% of the pregnant included in the study were between the ages of 25-29 and 27.5% of them were primary school graduates. 31.1% of them were primigravida and 79.5% of them were pregnant by willingly-planning, and 89.1% of them had regular antenatal care. The received preconception care rate was examined according to the age, the employment status, the place where they lived, the economic status, the couples of the women, the level of education of the spouses, their first pregnancy, were willingly planning their pregnancy and had regular antenatal care. The received preconception care rate was moderately good.

Conclusion: The rate of preconception care in pregnant women was very low, and it was determined that pregnant women, the affecting factors and the quality of care. From the components of the preconception care, it was identified that the order of the most frequently asked topics of the risk assessment component are: The ages of the mother and father (68.1%) in the evaluation of socio-demographic risks, past pregnancy status (91.8%) and delivery status (84.1%) in the evaluation of the reproductive system, the presence of a systemic disease such as DM or HT (74.2%) in the evaluation of the reproductive system, the vaccination (33.5%) in the evaluation of the infectious diseases and the presence of a drug that is advised to establish a proper diagnosis, care and therapy.

OS9-1472
DOES BARIATRIC SURGERY IMPROVE ASSISTED REPRODUCTIVE TECHNOLOGY OUTCOMES IN OBSESE INFERTILE WOMEN?

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Problem statement: Little is known about the impact of bariatric surgery on obese infertile patients. Methods: All obese women with a history of assisted reproductive technology (ART) failure that underwent ART treatment cycles both prior to and following bariatric surgery were included. Data from 12 cycles of ART outcomes were compared evaluating the duration and dose of gonadotrophins used; the measurement of day 3 FSH; the anti-mullerian hormone dosage; the number of follicles 15 mm; the number of transferred embryo; the pregnancy rate and the live birth rate.

Results: Forty women were included. The total number of gonadotropin units required and in the length of stimulation following bariatric surgery decreased (p = .001), with an increase of the number of follicles ≥15 mm (p = .005), of retrieved oocytes (p = .004), of top-quality oocytes (p = .001) and metaphase II oocytes (p = .008). More oocytes were fertilized in ART cycles following bariatric surgery (4.2 ± 1.7 vs 5.3 ± 2.4; p = .02). After surgery, we have registered also a better number of top-quality embryos (0.5 ± 0.6 vs 1.1 ± 0.9; p = .003). Pregnancy rate following the bariatric surgery increase. Rates of miscarriage (37.5%) (p = .001), and live birth rate (LBR) increased to 14/40 (35%) in the post-surgery group (p = .001). Conclusion: Our results provide the rationale to consider weight loss surgery one of the better ways to improve the results of ART treatment in obese infertile women. Bariatric surgery is confirmed to be one of the most useful interventions to obtain weight loss and improve the results of ART treatment and on top the pregnancy and the live birth rate.
The trigger for this paper is a publication, published in Fert. Ster. Febr. 2017 (1) with main message, that we can increase our Cumulative Pregnancy Rate (Fresh plus Kryo Cycle) in IVF by 8% with every additional cycle we harvest. There is no doubt, that Egg Collection is a crucial step in IVF. Unfortunately, we have no Guide Lines for this important procedure. Appro. 20% of IVF Centers worldwide are using Double Lumen Needles for OPU. 80 % Single Lumen Needles. The argument, not to flush follicles is frequently: “I do not believe in flushing, because the number of eggs are the same as with flushing, therefore flushing would be waste of time”. The question has Poiseuille’s law. As soon as we increase the inner diameter of a needle out of 19%, the aspirated volume is doubled. In a DL Needle, the flow volume would be decrease more than 50%. As consequence, the stimulating effect of gonadotrophin in the sexual steroids secretion is changed. Furthermore, the cortisol and progesterone compete by the same receptors, being cortisol preferred rather progesterone. This occurs because the body is being prepared for a surviving state “Fight and Flight”. The antagonistic activity of central nervous system ensures homeostasis of the body through the sympathetic nervous system responsible for acceleration of physiological processes and the parasympathetic nervous system which decreases the rate of these processes. These changes not only are reflected in the individual’s behaviour, but also in changing the biosignals: breathing, heartbeat, skin conductance, muscle activity or body temperature. Physiological parameters can assist in the analysis of the variation of an emotional state. To monitor the emotional state of the patients is crucial during the infertility treatments. No solutions have been presented for providing: 1) patients with real-time feedback about their emotional states and 2) physicians with some indicators. Thus, we present a new methodology using a biosignal and portable device for helping the patient in relaxing and to provide the physician with emotional indicators that may impact the success of the treatment. Our proposal uses skin conductance (SC) sensor to help the patients in training brains for relaxing. SC sensor allows measuring the electrical conductance of the skin controlled by the automatic nervous system. The skin conductance response (SCR) is a physiological indicator for measuring degree of arousal. If the arousal increases, the “fight or flight” response of the autonomic nervous system comes into action and adrenaline causes increased sweating, which is instantly measured. Our methodology consists of stimulating the patient with a relaxing song. Patient just needs to place the sensor in hand and connect to the Bluetooth unit. Unit will send, in real-time, raw signal to the computer, which will present signal in real-time to the patient. The steps are the following: 1) A song should be played during the first minute. This minute will provide the SCR baseline. 2) After one minute, song should be played and two situations will occur: a. SCR will increase in the favourite parts of the patient; b. At the end, SCR should decrease faster because patient is relaxed. 3) Steps 1 and 2 should be repeated three more times and after that, SCR of the patients should be lesser than the SCR baseline, extracted in the step 1. 4) Steps 1, 2 and 3 should be daily repeated to train the patient brain for relaxing. Data is stored into the cloud, and physicians and patients can access the emotional state indicators and monitor the patient progress. We believe that this methodology can be useful during the infertility treatments with high impact in its success.
and late debut.

whose pregnancy was complicated by severe preeclampsia with early

gene and the type 1 angiotensin II receptor AGTR1 A1166C in women

the polymorphism of the ACE I / D angiotensin converting enzyme

Elena Timokhina*

IN THE ETIOLOGY OF EARLY AND LATE PE

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Problem statement: Human sperm cryopreservation is commonly

used technique in assisted reproduction. However, conventional

freezing methods are not appropriate for severely oligozoospermic

samples. Recently, Cryotop is considered as the novel container for

freezing low concentration of spermatozoa. This study aimed to
determine the feasibility of freezing micro volume of human

spermatozoa by using Cryotop at different concentration of sucrose.

Methods: 45 normozoospermic semen samples were processed by

a discontinuous density-gradient centrifugation combine with swim-up

method. After that, the sperm suspensions were diluted with sperm

preparation medium and divided into six aliquots. Five aliquots were
cryopreserved by using fast freezing method on Cryotop with sucrose

solution at different concentrations (0.05M, 0.10M, 0.15M, 0.20M, and

0.25M). The remaining sample was cryopreserved by using

conventional freezing method in cryotube with Sperm Freeze solution

as a control group. Post thawing, sperm motility was compared among

six groups. Results: Before freezing (after sucrose equilibration), the

sperm motility was significantly lower in high concentration of sucrose

solution (0.20M and 0.25M) in compare with other groups (table 1). However, there was no significant difference in post-thawed among

sperm groups (table 2). Double higher in sperm motility were found

when comparing fast freezing protocol (sucrose groups) to

conventional freezing protocol (SF group) (68% versus 32%, p<0.01).

Table 1: Sperm motility of semen samples. post sperm preparation, adding cryoprotectant agents and post thawing

<table>
<thead>
<tr>
<th>Container</th>
<th>Cryoprotectant</th>
<th>Initial</th>
<th>Post sperm</th>
<th>CPA</th>
<th>Adding</th>
<th>Post-thawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>sucrose 0.05M</td>
<td>90 (6.3)</td>
<td>67 (14.1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CF</td>
<td>sucrose 0.10M</td>
<td>94 (6.8)</td>
<td>65 (14.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryotop</td>
<td>sucrose 0.15M</td>
<td>97 (6.5)</td>
<td>71 (13.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryotop</td>
<td>sucrose 0.20M</td>
<td>94 (19.1)</td>
<td>70 (12.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryotop</td>
<td>sucrose 0.25M</td>
<td>77 (18.7)</td>
<td>68 (15.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryotop</td>
<td>Sperm Freeze</td>
<td>90 (1.8)</td>
<td>32 (12.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: Rapid freezing of spermatozoa with sucrose is superior for
cryopreservation of human spermatozoa in comparison with

conventional cryopreservation methods. The new method is quick,
easy to perform and cost-effective. It prevents adverse effect of

permeable cryoprotectant agents on sperm function and saves more
time to find sperm, which may be beneficial to the ICSI outcome.

Therefore, it is suitable for patients with very low sperm numbers.

References:


O64-1262 THE ROLE OF RENIN-ANGIOTENSIN GENES POLYMORPHISMS IN THE ETIOLOGY OF EARLY AND LATE PE

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PE is a severe complication developing in 15-17% of pregnant women and is the leading cause of maternal and perinatal morbidity and mortality worldwide. The aim of the study: To reveal the frequency of the polymorphism of the ACE I / D angiotensin converting enzyme gene and the type 1 angiotensin II receptor AGTR1 A1166C in women whose pregnancy was complicated by severe preeclampsia with early and late debut. Materials and methods: A retrospective case-control study of 41 pregnant women with preeclampsia - the main group - and 25 patients with uncomplicated pregnancy (control group) was conducted. In the main group, we considered two stages: early and late preeclampsia. In the first (15 patients), observations were made when, due to the severe condition of the mother and / or fetus, the delivery was performed before 34 weeks. When the onset of the group of late preeclampsia (26 patients) - variants of development of this complication after 34 weeks. gestation. Results: Polymorphism of the I / D gene of the angiotensin converting enzyme ACE is associated with the risk of developing PE. The presence of the D allele increases the risk of developing severe PE. With the DD genotype, the probability of early PE is 5 times higher than the late PE. The data obtained confirm the involvement of the renin-angiotensin system, as well as the coding genes, in the development of PE. We can say that the polymorphism of the ACE gene is a genetic predictor of the development of early and severe PE. The study of the polymorphisms of the ACE gene makes it possible to use these gene markers as an assessment of the individual prognosis of development and features of the course of PE. Conclusion: Polymorphism of the I / D gene of the angiotensin converting enzyme ACE is associated with the risk of developing PE. The presence of the D allele increases the risk of developing severe PE. With the DD genotype, the probability of early PE is 5 times higher than the late PE.

O65-1431 NEW ADVANCES IN MICROSCALGY OF MALE INFERTILITY TESTIS EXPANDABLE BIOSURGERY AND MICROSCALGY

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In the last COGI Congresses in Paris (Paris, France, November 17-20, 2011, A6), in Hainan (Hainan, China, December 8-11, 2011, A27) and in Singapore (Singapore, July 19-22, 2012), the New Challenges in MARS – Male Reproductive Surgery and MicroSurgery to preserve and/or enhance Male Fertility are strictly connected to the MARS – Male Reproductive Medicine and Surgery. Expandable Surgery is a New Frontier in Applied BioTechnologies for Surgery: it combines Innovation Technologies (Medical Smart Systems) with Advanced BioTechnologies, including Cells Technology, for Regenerative and Reparative Medicine: Expandable BioSurgery is designed to be implemented in real time in the OP as GMP environment. The Needs of a classified BioRepository and/or Clinical BioBank to store and eventually manipulate (activate or expand) the Cell Samples in a GMP environment is mandatory to fill the legal requirements for Cell Therapy in Personalized Medicine and for Cell Therapy and Tissue Engineering in Regenerative Medicine. The new MIMIS (Male Infertility MicroSurgery) Techniques, developed by our team, called MIVAS, MIRES, IRMIS, TASM, MIRMAC [MIVAS – Male Infertility Vascular Surgery, MIRES – Male Infertility Reconstrutive Surgery, IRMIS – Infra Red Male Infertility Surgery, TASM – Testis Augmentation Surgery, MIRMAC –Microsurgery Reversible Male Contraception based on RISUG Adv.], are designed on this innovative Concept of Expandable BioSurgery to be implemented in Male Infertility and Male Reversible Contraception. TREMS based MIMIS are currently applied through a pilot multi-centric trial with a monitoring period of three years in so-called intermediate and low cost CMM-MIR Hubs in Italy, Hungary, Albania and India, to demonstrate the potential widespread application of MIMIS supported by high technological content - to preserve, restore and enhance Male Fertility Power -. The Tests Insufficiency (Impairment) Syndrome – TIS is a new clinical concept, based on 3T Parameters: Temperature increasing, measured by IR Technology; Testosterone decreasing, measured with salivary test; Testis Function impairing, measured by computer-assisted Dynamic Imaging Technology. In TIS-Tests Insufficiency Syndrome Expandable BioSurgery (TEBS) is combined with expandable MicroSurgery (TEMS) in Real-time in the OP: Three levels of TEBS and TEMS are designed, in relation to the main addressed goals: Sperm Quality Enhancement Morphology – SQEM, Testis Regenerative Matrix – TREM, Testis NanoSomes Release – TENSOR. The New Advanced Expandable MicroSurgery Techniques on the Human Testis (TEMS) pursue three Major Goals for Therapeutics. 1. Enhance the Quality Production of Sperm, 2. Enhance the spermatogonogenic and spermiogenetic processes through the BioPhysical and Functional Setting of the DNA Biobanking Apparatus of the Human Testis, (BioMicroEngineering Surgery) 2. Enhance or Repair or Regenerate...

O66-1297
Does HPV vaccination affect sexual behavior in adolescent and young women?
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Methods: 300 females 12 to 26 years were asked to fill an anonymous questionnaire of 84 questions regarding demographic characteristics, HPV awareness and sexual behavior. Attitudes and alterations in sexual behavior in relation to HPV vaccination were compared between the vaccinated and the non-vaccinated group. Results: Vaccinated cohort was of younger age, started coital sex in younger age (RR =0.75,95% CI 0.58-0.96, p=0.040) and their partners were younger too. Vaccinated group was of older age and was more commonly sexual active (RR 0.75, 95% CI 0.58-0.98, p=0.040) with a higher number of sexual partners (RR 0.63, 95% CI 0.42-0.94, p=0.040). There was no difference found between the vaccinated and non-vaccinated group on attitude to sex and relationships and the use of condom. More young women on the vaccinated group believed that vaccination should be done early (p=0.001), believed that is a prerequisite for the initiation of coital sex (RR 1.63, 95% CI 1.07-1.82, p=0.001) and that it created an opportunity to discuss sexual issues with their family (p=0.010).

Conclusion: Young women that are vaccinated start sex earlier but do so after being vaccinated and show a more responsible attitude towards sex and contraception. The vaccinated group was guided by their family, discussed sex with them, and asked for medical advice on relevant issues.

DOES HPV VACCINATION AFFECT SEXUAL BEHAVIOR IN ADOLESCENT AND YOUNG WOMEN?

Anastasia Vatopoulou1, Alexios Papanikolaou1, Pantelis Tsimarisis1

Methods: 300 females aged 12 to 26 years were asked to fill an anonymous questionnaire of 84 questions regarding demographic characteristics, HPV awareness and sexual behavior. Attitudes and alterations in sexual behavior in relation to HPV vaccination were compared between the vaccinated and the non-vaccinated group. Results: Vaccinated cohort was of younger age, started coital sex in younger age (RR =0.75, 95% CI 0.58-0.96, p=0.040) and their partners were younger too. Vaccinated group was of older age and was more commonly sexual active (RR 0.75, 95% CI 0.58-0.98, p=0.040) with a higher number of sexual partners (RR 0.63, 95% CI 0.42-0.94, p=0.040). There was no difference found between the vaccinated and non-vaccinated group on attitude to sex and relationships and the use of condom. More young women on the vaccinated group believed that vaccination should be done early (p=0.001), believed that is a prerequisite for the initiation of coital sex (RR 1.63, 95% CI 1.07-1.82, p=0.001) and that it created an opportunity to discuss sexual issues with their family (p=0.010).

Conclusion: Young women that are vaccinated start sex earlier but do so after being vaccinated and show a more responsible attitude towards sex and contraception. The vaccinated group was guided by their family, discussed sex with them, and asked for medical advice on relevant issues.

O67-1092
Higher levels of follicular fluid sRAGE predict a better ovarian reserve and better IVF-ET pregnancy outcomes
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Problem statement: sRAGE consequently serves as not only a biological marker that reflects pathological changes within the body but also a protective factor that delays the occurrence of diabetes, atherosclerosis, and other diseases. But the role of the soluble receptors for AGE (sRAGE) in ovarian reserve remains unclear. The aim of our study was to investigate whether follicular fluid sRAGE is associated with marker of ovarian reserve and whether follicular fluid sRAGE can predict the pregnancy outcome of in vitro fertilization-embryo transfer (IVF-ET). AMH and INH-B are the most recognized markers of ovarian reserve. Methods: The prospective study included a total of 35 IVF-ET patients caused by tubal factors using agonist protocol in our reproductive center. All patients were younger than 35 years old. BMI between 18.5 to 25. Measurements taken at the time of egg collection by ELISA to examine the difference and the correlation. Demographic clinical data and parameters of IVF-ET results including the number of the oocyte retrieved, pregnancy outcomes are collected. Results: We observed an inverse relationship between FF sRAGE protein levels and the total number of oocytes retrieved (r=0.488, P=0.005). After the analysis was adjusted for age, BMI, day 3 FSH, and the dose of Gn used, FF sRAGE protein could be used to predict the total number of oocytes retrieved (beta=0.005, P=0.008). Women who successfully conceived after IVF transplantation had significantly higher levels of sRAGE than those who failed to conceive (1906.201±1160.407 vs 1145.147±383.716pg/mL, P=0.048). After the analysis was adjusted for age, BMI, day 3 FSH, and the dose of Gn used, FF sRAGE protein levels could be used to predict the pregnancy outcomes (Exp(ratios)=1.09, P=0.003). FF sRAGE positively correlated with AMH and INH-B (r=0.411, P=0.288; r=0.293, P=0.341, respectively). Conclusion: These data support a relationship between follicular fluid sRAGE and the number of the oocyte retrieved, sRAGE and AMH and INH-B, sRAGE and pregnancy outcome. Higher levels of follicular fluid sRAGE predict a better ovarian reserve and better IVF-ET pregnancy outcomes.

O68-1464
Health beliefs of university students about human papilloma virus infection and vaccination
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Problem statement: Medical personnel’s suggestion of the vaccine to patients shall play a significant role in HPV vaccination uptake by the society and widely spread use thereof.Sufficient knowledge of nursing students on the HPV infection and vaccines is significant in describing this vaccine to and its being accepted by the society. So, it is expected that they are medical personnel of the future and included in the risk group in terms of the HPV infection and associated complications. This study has been implemented as a descriptive study in order to provide health beliefs of the students of the School of Nursing about the HPV infection and vaccination. Methods: This study of descriptive type has been implemented with 496 students attending the 3rd and 4th grades at the School of Nursing of the Ege University. Data has obtained from the study has been carried out on computer media, using the Statistical Package for the Social Sciences (SPSS) 20 package programme. Data have been tested by the use of Kolmograv normal distribution test, number and percentage distribution, ANOVA test and Tukey test. Findings: The study has been implemented with 496 (male: 83; female: 413) students with an age average of 22.55±1.06. Once the educational status of the students’ mothers has been examined, it is found out that the highest percentage is of elementary school graduates with 34.3% (n=170). In terms of the educational status of fathers, the highest percentage is of elementary school graduates with 34.3% (n=170). In terms of the income status of the families, it has been found out that the highest percentage is of medium-level income (96.6%). It has been further found out that 96.6% of the students have heard of the pap smear test and that 58.1% of them have an adequate level of knowledge about the pap smear test. It has been found out that 92.3% of the students have heard of the HPV infection, that 50.8% of them have medium-level knowledge about HPV and that 79.4% of them have learnt such knowledge from the company of their own. It has been found out that 78.6% of the students have heard of the HPV vaccine and that 45.8% of those who have heard thereof has medium-level of knowledge. Students have replied the question “Would you be HPV vaccinated?” “Yes” at 56.3% and “No” at 43.5 percent. 27.8% of those who have replied “Yes” have reported that they would be vaccinated in order to be “protected against HPV”. 21.2% of those who have replied “No” have reported that they would not be vaccinated because “they find it not necessary”. It has been found out that 79.2% of the students the HPV infection is dangerous for both men and women, that 50.8% of them know the ways of protection and that, of such ways of protection, they know vaccination and monography the best. Medical belief model about HPV infection and vaccination scale point average of the students has been found to be 37.67±6.87 and considering that the scale takes a maximum of 56 points, it shows that the students are of medium level. Cronbach-alpha reliability coefficient of the scale has been found to be 0.76. It has been found out that the effective factors concerning the Human Papilloma Virus Infection and Vaccination are hearing about the infection earlier, the resource from which they have heard of it, hearing about it in age lower than their level of knowledge of the vaccine and ways of protection (p=0.05). According to this result, as the university students’ state of hearing about and knowing the HPV infection and vaccine increases, their affirmative tendencies points about the Human Papilloma Virus Infection and Vaccination also increases.

Conclusion: Vaccines are the primary strategy in reducing the complications caused by the HPV infection and the highest level of knowledge of the medical personnel on the matter shall also affect the efficacy and success of the advice they will provide. The fact that trained medical professionals play an effective role in organising and
O69-1227
THE INVESTIGATION OF NURSES’ SELF-EFFICACY PERCEPTIONS WITH PROBLEM-SOLVING ABILITIES

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The study was performed as a descriptive and cross-sectional analysis to investigate nurses’ self-efficacy perceptions with problem solving abilities. The aim of the study was composed of the nurses working in a university hospital, while the sampling consisted of those accepting to take part (N=392). The data were collected through the “Nurses’ Information Questionnaire”, the “Self-Efficacy-Scale (SES)” and the “Problem Solving Inventory (PSI)”. The accumulated data were analyzed with appropriate statistical methods using Statistical Package for Social Science for Windows (SPSS) 20.0 package software licenced by Selcuk University. Mean scores of nurses’ SES total and four subdimensions (Initiating Behaviors, Maintaining Behaviors, Completing Behaviors and Struggling with Obstacles) were found to be higher as 86.93±12.76, 31.34±5.66, 27.09±4.76, 19.19±4.06 and 9.32±2.48, respectively. Mean scores of nurses’ PSI total and three subdimensions (Problem Solving Confidence, Approach-Avoidance and Self Control) were observed to be at medium level as 93.32±22.24, 29.99±8.81, 47.61±10.85 and 15.72±4.66, respectively. Inadically, while problem solving ability, training after graduation for problem solving and professional title were, in turn, detected to be most influential on self-efficacy perception, the time of professional experience to be least. It was also statistically influential on problem solving abilities at a higher rate (p≤0.01). A statistically negative powerful and higher significant association was determined to be present between the averages of nurses’ SES and PSI scores (p≤0.01). It was also detected that the total and four subdimensions of SES increased, total and three subdimensions of PSI decreased. Based on these findings, we concluded that as nurses’ self-efficacy perceptions increase, their problem-solving abilities also increase.

O70-1288
MIDWIFERY STUDENTS’ INFORMATION LEVEL AND ATTITUDES TOWARDS LESBIANS AND GAY MALES IN TURKEY

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Problem statement: Various changes have been witnessed in societal attitudes and perception towards homosexuality in Turkey; however, lesbians and gay males are still experiencing serious social problems. Discrimination experienced by homosexual individuals in a society also leads these individuals to experience considerable inequality in access to and use of health care. Midwives actively working in the fields of reproductive, sexual and societal health have important responsibilities and should be aware of mistakes and inequalities in training, national health policies and health care requirements needed by homosexual individuals. For these reasons, it is essential that the awareness of midwives be increased, and midwives be informed and trained about homosexuality and homosexual individuals during undergraduate education. The present study was aimed at investigating the attitudes and information of midwifery student towards lesbians and gay males. Method: Four hundred and five participants aged between 18 and 31 years old, all of whom were midwifery students in a university in a Central Anatolian province of Turkey were included into this descriptive study. The demographic information questionnaire (DIQ) designed considering literature by the researchers, the homosexuality attitudes scale (HAS) and the information form for homosexuality (IFH) were used to gather the data. An approval was obtained from both the local ethical board and educational board of the faculty in which the research was conducted. Statistical Package for the Social Sciences for Windows, version 20.0, was used to analyze data. Results: While mean age of study participants was 20.60±1.46, mean HAS and IFH scores were 93.32±22.24 and 11.36±2.40, respectively. Participants may be suggested negative/homophobic attitudes at middle to higher levels. However, information level of study participants was found at middle level, given that the highest score was 20. While there was a statistically significant association between mean HAS score, and students’ educational status (P 0.05), no statistically significant association was found between marital status, family type, perceived income level and students’ educational status (P 0.05). Additionally, although a statistically significant association was observed between mean IFH score, and students’ family type, perceived income level and parents’ educational status (P 0.05), there was no statistically significant association between mean IFH score, and students’ mean age level and location where students lived longest (P 0.05). Between mean HAS score and students’ age level, a negative significant correlation and middle level was observed (r=-0.17, P<0.05). No statistically significant correlation was found between mean IFH score, and students’ mean age level and mean HAS score (P 0.05).

Conclusion: In our study, it was concluded that midwifery students’ attitudes towards lesbians and gay males were negative and information level was insufficient. As an important part of health care, midwives should be aware of different sexual orientation and personalities to give sufficient and qualified health care to all individuals in the society. We consider that such an awareness can be formed through accurate and sufficient training related to homosexuality during undergraduate education.
reduced in vitamin B1 group, and the comparison was significantly different. **Conclusions:** Therefore, vitamin B1 is recommended for reduction of symptom severity of PMS include desire to eat sweet. This vitamin can be used to reach a major goal of midwifery, without any side effects.
CORRELATION BETWEEN PROLACTIN, ANTI-MULLER HORMONE, INGIBIN A AND INGIBIN B IN INFERTILE WOMEN

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Background: The objective of our study was to identify the correlations between the anti-Mullerian hormone (AMH), Ingibin A (Ing A) and Ingibin B (Ing B) and prolactin in infertile women. Materials and Methods: In this prospective study, 92 infertile (main group) and 8 reproductive healthy (control group) women were assessed. AMH level was lower than 1 ng/ml in all women. AMH, Ing A and Ing B and prolactin were determined on days 2-3 of the patients’ menstrual cycles. Results: The mean levels of Ing A, Ing B and prolactin are shown in table. The levels of prolactin were significantly higher in main group (p<0.01). And there was a significantly elevated positive correlation between Ing B and AMH (k=0.310, p<0.01) and Ing A (k=0.354 p<0.001) in infertile women. We observed a negatively correlation between prolactin and Ing A (k= -0.394, p<0.01) in reproductive healthy women.

Conclusion: Although, AMH is low in both group, but correlation between hormones are different. Currently, AMH should not be used alone as the marker of ovarian reserve. Hence, assessment of other hormones will benefit better results.

COMMENTS

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Problem statement: Antioxidant effect of Allium cepa (onion) after exposure to Escherichia coli. Methods: Thirty-Two adult Wistar male rats aging 2.5 to 3 months divided to four groups of 8 rats. Enterotoxigenic E. coli (serotype 0114) used to infect the rats. Onions prepared from the district Itikichi, Iran which were used for two groups. Following the infection, pathologic samples were prepared from the tissue of the sperms which were investigated through hematoxylin & eosin (H & E) staining. In addition, the motility, vitality, the number of sperms, total antioxidant capacity (TAC), luteinizing hormone (LH), and testosterone were evaluated as well. Results: Results indicated that in the control group all the semen samples are sticking together and all the lines of sexual cells are broken while in E. coli group were disrupted and the lines of sexual cells were destroyed. In the groups infected by E. coli and treated by A. cepa juice, the effects of bacteria reduced considerably. The number of sperms, sperms vitality and motility decreased significantly in E. coli infected group, while in the A. cepa juice + E. coli the effects of infectious was reduced. Conclusion: A. cepa juice significantly increases TAC and testosterone. The results indicated A. cepa juice has protective effects against E. coli bacteria and fertility, testis tissue and antioxidants improvement and the effects of the bacteria decreased significantly.

FACTORS, THE BLOOD ANTIOXIDANTS, AND TESTIS TISSUE IN RATS

P02-1284 SEROPREVALENCE AND CLINICAL CORRELATES OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG CLIENTS WITH INFERTILITY IN NORTHWEST NIGERIA

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Problem statement: In Africa infertility prevalence is high and it is associated with major psychosocial burden. HIV infection rate is also high in Africa and studies have shown that fertility may be reduced in infected women. General Objective: The study determined the prevalence and clinical correlates of HIV infection among clients with infertility. Methodology: A cross-sectional study conducted in women attending the infertility clinic at Ahmadu Bello University Teaching Hospital, Zaria. Results: Twenty one of the 250 clients tested positive for HIV giving a prevalence of 8.4%. 33.3% were newly diagnosed while 66.7% were known cases on antiretroviral therapy. Secondary infertility accounted for 81%. Serodiscordance was seen in 42.9% of HIV positive women and 52.4% had stage II disease. Tubo-peritoneal infertility was diagnosed in 71.4% of cases which is statistically significant (p value 0.048), while 9.5% had multifactorial causes of infertility. Conclusion: Compared to HIV rate in the general population, this study recorded a higher rate. There is need to screen all clients with infertility and their partners for HIV infection.

COMMENTS

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Problem Statement: Gynecological cancer is in the first place in the cancers in women in Turkey and in the world, the number of cases increases every year. In gynecological cancers, chemotherapy is the most frequently used treatment option after surgery despite its side effects. In gynecological cancer patients, the most common side effect of chemotherapy is the fatigue symptom which affects the patients’ quality of life. Method: This review was written by evaluating the findings of 17 articles on cancer and fatigue which were published between 2000 and 2012. The articles were searched in online data bases between 01.07.2017 and 20.08.2017. The aim of this study is to discuss the effect of the chemotherapy period on the fatigue symptom in gynecological cancer patients. Results: In the period of cancer treatment, anemia, cachexia, fever, infections, metabolic diseases, sedative medications, obesity, low activity level, alcohol use, environmental toxins, previously received cancer treatments are among the most important causes of fatigue. It is also known that women are more likely to experience the fatigue symptom in cancer treatment than men. Most of the patients (80-99%) experience fatigue symptoms during chemotherapy. Fatigue symptoms may continue in 15-40% of patients for up to 1 year after treatment. In addition, there are studies showed that fatigue is permanent in 17-26% of the cases. The insomnia due to menopausal symptoms in the women who underwent chemotherapy also leads to fatigue. The side effects regarding the gastrointestinal system which are developed during chemotherapy and especially fatigue resulting
from anemia due to bone marrow depression may negatively affect women’s quality of life. Conclusion: Fatigue is the most common symptom in ovarian cancer patients during chemotherapy and it negatively affects the patients’ quality of life. Healthcare professionals should determine the cause of fatigue at first and develop strategies for coping with the fatigue that might develop in the patients using pharmacological or non-pharmacological methods. If the patients have anemia, fever, infection, dehydration, electrolyte imbalances, cachexia, depression, anxiety, pain, sleep problems and hypothyroidism, appropriate treatment and care should be applied. The training should be given to protect and increase the energy of the patients.

**P06-1208**

**FUNCTIONAL STATE OF ENDOMETRIUM DURING THE «WINDOW OF IMPLANTATION» CAN BE ASSESSED WITH MRNA EXPRESSION LEVEL OF PAEP, DPP4, MSX1 AND HLA-DOB GENES**

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**Aim of the study:** To determine the most informative markers for assessing the functional state of endometrium during the “window of implantation” and creating a model for assessment of the readiness of endometrium for embryo implantation.

**Material and methods:** 47 women with tubal infertility and a successful IVF pregnancy participated in the study. Pipelle endometrial sample was performed during the supposed “window of implantation” in natural cycle with subsequent histological study, and transcriptional profile of genes GPX3, PAEP, DPP4, TAGLN, HABP2, IMPA2, AQP3, HLA-DOB, MSX1, POSTN determined by reverse transcription and real-time quantitative polymerase chain reaction (qRT-PCR).

**Results:** The model for determining a receptive status of the endometrium using the real-time quantitative transcriptional profile, real time RT-PCR.

**Conclusion:** A set of novel decision-making indices to freeze all embryos or to continue fresh embryo transfers upon each condition in the individualized controlled ovulatory stimulation cycles

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**Problem statement:** Freeze-all policy is a novel approach to improve assisted reproductive technology (ART) outcome based on that controlled ovarian stimulation may have a negative effect on the receptivity of the endometrium for embryo implantation. However, overall benefits and limitations of the new strategy have not been elucidated. We have created a set of novel formulae to consider the policy upon each condition at every ART facility.

**Methods:** We have set up two indices: the freeze-all suggestion (FAS) and the freeze-all consideration (FAC). Each index is calculated by the formula as shown in Figure 1. We applied the indices in our own practice after the data of conventional freeze-all cycles, such as those for avoiding ovarian hyperstimulation syndrome (OHSS) or those due to the thin endometrium, had been eliminated.

**Results:** Overall FAS and FAC index calculated from our most recent 896 cycles was 18.8 and 59.7, respectively. FAS and FAC index in women 35 years old and over (481 cycles) was 17.2 and 63.8, respectively. FAS and FAC index in women younger than 35 (415 cycles) was 20.2 and 54.9, respectively. FAS and FAC index in women with peak estradiol (E2) concentration 3,500 pg/ml or more (162 cycles), where we currently freeze all embryos if E2 is increased above 5,000 pg/ml, was 27.7 and 71.6, respectively. FAC index in women undergoing GnRH agonist/antagonist (502/287 cycles) was 22.8/13.2 and 61.5/60.3, respectively.

**Conclusion:** The new indices helped to compare the merit of freeze-all application upon each condition. In our protocol, the benefit of freeze-all policy may exist under the condition of lower peak E2 than that for avoiding OHSS. GnRH antagonist cycles did not show any advantage of the freeze-all policy in our practice.

**P08-1390**

**AN ALTERNATIVE TO HORMONE THERAPY OF ADENOGYMOSIS**

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Adenomyosis is a common gynecological disease noted in more than half of all reproductive age women. The high rate of this condition, low effectiveness of hormone therapy and undesirable effects, as well as a low quality of patients’ life, call for a search for more effective medicamentous and non-medicamentous therapies.

**Problem statement:** Treatment of adenomyosis requires pathogenetically effective drugs able to act on all components of pathogenesis. Such target drugs are indole-3-carbinol (Indolin 6) and epigallocatechine-3 gallate (Epigallocatechin). Indole-3-carbinol decreases estrogen dependent cell proliferation, stimulates apoptosis of cells with enhanced proliferative activity in endometrial and myometrial tissue. Epigallocatechine-3 gallate suppresses neangiogenesis and produces an antioxidant effect improving homeostasis in the tissues of target organs.

**Objective:** assessing the effectiveness of therapy with indole-3-carbinol and epigallocatechine-3 gallate for adenomyosis in women

**Methods:** The results of histological examination and transcriptional profile of genes GPX3, PAEP, DPP4, MSX1 and HLA-DOB genes. For determination a personalized "window implantation" is offered for practical application in ART. **Key words:** IVF and PE, personalized "window of implantation", transcriptional profile, real time RT-PCR.
of reproductive age. Materials and methods: 7 patients with adenomyosis were examined. The mean age of patients was 34.5 ± 4.5 years. The group consisted of women with confirmed diagnosis of adenomyosis, no indications for surgery, without severe extragenital disease or suspicion of any type of malignancy at the time of treatment; these patients had undergone hormone therapy. The patients received a complex examination per the adenomyosis protocol: investigations and lab tests, instrumental examinations (ultrasound and color Doppler of pelvic organs), hysteroscopy with myometrial biopsies, determination of the RI value in the examined material, if indications are present. The extent of pain syndrome was assessed using VIS. All patients received Indinol and Epigallate, 2 capsules of each twice a day for 6 months. Results and discussion: Most of the examined women had other obstetric and/or gynecologic disease: diseases of the cervix (40.05%), complicated delivery and abortion (25.9%), inflammatory conditions of the uterus and appendages (21.4%). Prior to receiving the target therapy with medications in question, 93.3% of patients showed various menstrual disorders with dysmenorrhea (80%) and frequent heavy flow (57.3%) predominating. Dyspareunia was noted in 44% of cases. The severity of pain prior to the onset of therapy was 6.94±0.24 points. Ultrasound and color Doppler of pelvic organs was done on day 5 of the woman’s period. Per ultrasound findings, uterine walls too thick for the day of period were seen in 64% of patients, increased volume of uterus is if at 5 weeks’ gestation - in 78.7%. The mean size of posterior uterine wall on ultrasound was 7±3.02 mm, the mean volume of uterus was 5.04±0.1 weeks of gestation. 6 months after the onset of non-hormonal treatment, 55% of women had a normal period without abnormalities. The rate of dysmenorrhea decreased to 20% (p<0.01), the rate of dyspareunia – to 5.3% (p<0.01). The severity of pain was 2.15±0.21 points (p<0.01). Ultrasound findings indicated that enlarged uterus with thickened posterior wall persisted in 14.7 and 21.3% of patients, correspondingly (p<0.01). Ultrasound and color Doppler showed that the mean size of posterior wall did not exceed 5.12±0.18 mm, its mean volume – 4.94±12.12 weeks. In 75% of cases a regression of endometrioid heterotopy was seen. All patients receiving Indinol and Epigallate showed improved quality of life and absence of any undesirable effects. Conclusions: Findings obtained through this study indicate clinical effectiveness of target therapy, good tolerance of Indinol and Epigallate, absence of side effects. The medications in question show a powerful antiprofibrinous effect, which underlies the suppression of endometrioid heterotopy growth and development. Administration of these medications is an effective alternative to hormone treatment.

P09-1395 DIFFERENTIAL DIAGNOSIS AND TREATMENT OF UTERINE MYOMA ASSOCIATED WITH ADENOMYOSIS

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The last decade has been characterized by a steady increase in the frequency of fibroids and a combination for choosing the tactics of differentiated organ-pathology, as well as the detection of the first-time cardiac pathology in pregnant women who did not have a history of this pathology, as well as the detection of the first-time cardiac pathology in re-pregnant women. The purpose of this study was to determine the features of the course of pregnancy and childbirth in patients with cardiac pathology in the history and in pregnant women with a newly diagnosed pathology. A total of 19 pregnant women were examined, which are divided into 2 groups: 1 group of 22 women with a history of heart disease, and 2 women with 26 women who had heart disease for the first time during this pregnancy. The mean age of the examinees was 25 ± 4.6 years. The study of parity of pregnancy showed that in the 1-group the first-pregnant women made up the majority (77.3%), the rest were re-pregnant. In the second group, the first-pregnancy groups accounted for about one-third (34.6%), while the rest were re-pregnant. Observation and treatment of all pregnant women was carried out during the supervision of a cardiologist. The gestation period for admission to the hospital ranged from 22 to 32 weeks. In the 1 group of pregnant women, 63.6% had congenital heart defects, the rest - acquired pathology (posimioendocardial cardiocirculatory diseases - 36.4%). In group 1, pregnant women were admitted to inpatient care in the department of pregnancy pathology for preventive treatment in the II and III trimesters. However, despite the treatment, more than half (59.1%) of them had complaints at the end of the II-trimester for weakness, dyspnea. In the 2-group, all pregnant women went for examination and treatment in connection with complaints about shortness of breath, tachycardia, pain in the heart for the first time during this pregnancy. All patients underwent a clinical examination by electrocardiography, echocardiography. The results of the research showed that in the 2-group in 4 (15.4%) women the congenital heart defects (defect of the interventricular or interatrial septum) were first revealed, which had no clinical manifestations before. The most frequent (14 women - 53.6%) was diagnosed with posimioendocardial cardiocirculatory. In 2 (7.7%) patients, dilated cardiomyopathy was detected. In 6 (23.1%) patients with echocardiography, the prolapse of mitral valve flaps with regeneration of I or II degree was revealed. All pregnant women underwent cardiotonic therapy. The increase in the cardiovascular insufficiency clinic was the main reason for preterm delivery for prevention of preterm delivery. The section more often in 81.8% of the pregnant 1 group compared with the pregnant women in the 2nd group (61.5%) mainly in pregnant women with heart defects and in patients with dilated cardiomyopathy. Carrying out the prevention of fetal distress with corticosteroids contributed to a decrease in perinatal losses, especially in pregnant 1-group. 6 of 10 patients (60%) received preventive treatment during pregnancy. Conclusions. The pathology of the heart in pregnant women can have a latent course and manifest itself at the end of II or III-trimester. Congenital heart defects are
more often an indication for operative delivery. The emergence of cardiac pathology for the first time after the second-third birth requires further study of risk factors, especially the course of the postpartum period.

P11-1345
PRETERM BIRTH: CAESAREAN SECTION VERSUS VAGINAL DELIVERY
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Problem statement: To find the optimal mode of delivery of preterm babies we compared perinatal outcomes of preterm birth by vaginal and caesarean delivery. Methods: we included 157 premature babies after vaginal and 124 premature infants after caesarean delivery. We excluded all pregnancy with complications. And because of this we couldn’t compare perinatal outcome before 28 weeks, because all caesarean section 26 weeks were made because of severe complications of pregnancy. Results: there was no significant difference between the vaginal and caesarean delivery in birth asphyxia (Apgar score less than 7 at five minutes) (2.54% and 0.9%), RR 3.15, 95% CI 0.358-27.91) and respiratory distress (22.3% and 29.9%, RR 0.768, 95% CI 0.541-1.15). Also, no difference in hypoxic ischaemic encephalopathy (65.6% and 72.6%, RR 0.904, 95% CI 0.773-1.057) and intraventricular haemorrhage (IVH) (3.18% and 1.61%, RR 1.975, 95% CI 0.390-10.0). The biggest interest was the neonates 28-32 weeks. We also didn’t find any difference between vaginal and caesarean delivery in birth asphyxia (6.33% and 7.14%, RR 1.167, 95% CI 0.132-10.294) and hypoxic ischaemic encephalopathy (63.3% and 65.71%, RR 0.972, 95% CI 0.755-1.226). But only newborns after vaginal delivery had IVH at 28-32 weeks. Conclusions: we did not find sufficient evidence that caesarean section in preterm birth improves perinatal outcomes.

P12-1150
POLYHYDRAMNIOS AND CLUB FOOT ASSOCIATION AS PRE-NATAL FIRST SIGN OF A NEMALINE MYOPATHY
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Problem statement: Nemaline myopathy is characterized by nonprogressive muscular weakness most prominent at proximal muscle groups and congenital disease is present in 82% of cases.1 Inheritance can be sporadic, autosomal dominant or recessive.2 Most cases present no antenatal signs of distress. Fetal-onset phenotypes are recognized, however sonographic features are non-specific, making prenatal diagnosis rare: polyhydramnios, reduced fetal movements, talipes or positional limb abnormalities, inability to visualize the stomach and borderline ventriculomegaly.3 Sonographic abnormalities frequently develop in third trimester of pregnancy.4 Majority of cases present in early ages with severe hypotonia and muscle weakness.5 The aim of this work is to make obstetricians aware of the relevance of nonspecific sonographic signs that, although rare, can reveal a disease with severe burden. Methods: Single case retrospective study. Results: A 25-year-old woman, in her first pregnancy was referred to our hospital after a bilateral club foot was diagnosed in second trimester routine ultrasound (image 1). Until then, pregnancy was uneventful. Nuchal translucency and karyotyping was normal. Muscular biopsy suggested Nemaline Myopathy. Conclusion: Nowadays pre-natal diagnosis shows exponential growth. Non-specific forms of presentation of severe diseases must never be forgotten. In this clinical setting, we reinforce the previous statement showing club foot and polyhydramnios as signs of a severe and rare myopathy. When such signs exist, although prognosis is good in most cases, pre-natal counselling must be cautious. Sharing information with neonatologist is significant because can improve initial care to new born. In this case, we also emphasize the value of prenatal counselling in a future pregnancy, given the genetic transmission of disease.

P13-1399
THE CHORION TYPE EFFECTS ON THE COURSE OF TWIN PREGNANCIES
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Perinatal care and delivery of multiple pregnancies are topical problems in modern obstetrics. The reason for it is high level of complications for women and fetuses during gestation, delivery and post-natal periods. In pregnancy with twins’ perinatal morbidity and mortality up to 6 times higher than in singleton pregnancies, and in monochorionic these rates are 3-4 times higher than the dichorionic. In connection with these multiple pregnancies require a differentiated approach to them, depending on the history of the occurrence and the type of placentation. Since it is the choriality in pregnancy of twins that has a significant effect on the incidence of complications, the tactics of managing pregnancy and labor, determines the prognosis of perinatal outcomes. Materials and Methods: We conducted retrospective analysis of the pregnancy duration and labors in 765 cases of twins’ births between 2007 to 2017. Results: The percentage of twins that were delivered was 2.2%. The ratio of monochorionic and dichorionic types was 1:10. In this case, this ratio of spontaneous twins was: 1:8, and 1:12 for the induced ones. The duration of monochorionic twin’s pregnancies, regardless of occurrence and type, was accompanied by complications at different periods of gestation in 100% cases: premature delivery was diagnosed in 74% of cases, preclampsia of various severity in 71%, anemia in 70%, gestational diabetes mellitus in 62%, premature rupture of membrane in 41%, chronic placental insufficiency in 77% of cases, and feto-fetal syndrome in 18%. During the gestation of dichorionic twins’ complications were diagnosed not so often and reached 60%: premature birth in 58.7%, premature rupture of membrane in 30%, placental insufficiency in 47.4%, preeclampsia of various severity in 45%, anemia in 44.8%, cerebral incompetence in 24%, hydramnion in 17.5%. In the case of induced twins, complications were observed seven times more often. Vaginal delivery occurred in 189 (25%) pregnant with twins. A total number of 576 (75%) pregnancies with twins were completed by a cesarean section. 72% of pregnant women with monochorionic twins were delivered operatively. The main indications for cesarean section were: increase in the severity of placental insufficiency - 42%, acute hypoxia of one of the fetus - 27%, and an increase in severity of...
Introduction: Ketorolac is occasionally administered for post cesarean delivery analgesia. The clinical efficacy of ketorolac for post cesarean analgesia had never been directly compared to meperidine. The purpose of this study was to determine the efficacy of ketorolac for pain control in post cesarean delivery compare to meperidine. Methods: This was a randomized double-blind controlled trial comparing the effectiveness of intravenous ketorolac compared to meperidine. The inclusion criteria were term pregnant women who were 18-40-year-old and undertook cesarean delivery. The subjects were randomly divided into study and control groups. The study and control group received 30 mg of ketorolac and 50 mg of meperidine intravenously after surgery, respectively. Visual analog score (VAS) was used to assess the post operative pain ranged from 0-10. VAS was recorded at 3, 6, 12 and 24 hours postoperatively. Demographic data of parturient, newborn and side effects were also recorded. Results: A total of 580 cases were recruited. There were 297 and 283 cases in study and control group. Both groups showed no statistical difference in mean age, gestational age, fetal weight, parity and blood loss. Either ketorolac or meperidine group showed no significant post operative pain relief of 3, 6, 12 and 24 hours. After first initial post-operative pain assessment, 8% (249/297) and 7.4% (224/283) of patients needed and received rescue analgesia. Subjects in both groups who had VAS equal or more than six had equally post operative pain relief either by ketorolac or meperidine. There was no maternal, fetal complications and serious side effect in this study. Conclusion: Ketorolac had equal efficacy to meperidine. It could be an alternative medication for pain control in post cesarean delivery.

P15-1100 COMPARATIVE CLINIC OUTCOMES ACCORDING TO THE TYPE OF rFSH USED IN CONTROLLED OVARIAN STIMULATION PROTOCOLS
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Problem statement: Patients undergoing assisted reproduction treatments have been stimulated with different types of gonadotropins hormones being the recombinant human FSH (rFSH) the most used in controlled ovarian stimulation protocols. Recently new versions of rFSH have emerged on the market to be compared in terms of efficacy and safety. The objective is to compare clinical results in fresh oocytes cycles with respect to three ovarian stimulation protocols using the same rFSH molecule belonging to three brands: Puregon®, Gonal-F® and its biosimilar Bemfrola®. Methods: Retrospective observational study that include 1050 patients that were divided into three groups per the type of rFSH used for ovarian stimulation: 16% were stimulated with Bemfrola®, 49% with Gonal (n=501) and 35% with Puregon (n=366). The embryos were cultured in incubators with low oxygen tension. The technique of fertilization was ICSI or IVF per the center’s standard procedures, and a maximum of two embryos or blastocysts were transferred if the transfer was performed on day 3 or 5 after oocyte retrieval. One-way analysis of variance for continuous variables and the chi-squared test for categorical data were used for data analysis. Statistical analysis was performed with the Statistical Package for Social Sciences, version 20.0 (SPSS, IBM Corporation, NY, USA), and differences were significant if the probability of their occurrence by chance was 0.05. Results: The results are shown in the table:

<table>
<thead>
<tr>
<th>BEMFROLA</th>
<th>GONAL</th>
<th>PUREGON</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n=171)</td>
<td>(n=501)</td>
<td>(n=366)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>36.0 ± 5.0</td>
<td>35.0 ± 5.0</td>
</tr>
<tr>
<td>Gestational age (weeks)</td>
<td>33.6 ± 2.1</td>
<td>33.8 ± 2.0</td>
</tr>
<tr>
<td>Progesterone (ng/ml)</td>
<td>1.7 ± 0.2</td>
<td>1.8 ± 0.3</td>
</tr>
<tr>
<td>Implantation rate (%)</td>
<td>38.8</td>
<td>37.0</td>
</tr>
<tr>
<td>Clinical Pregnancy rate (%)</td>
<td>45.7</td>
<td>47.4</td>
</tr>
<tr>
<td>Live Birth rate (%)</td>
<td>46.2</td>
<td>46.2</td>
</tr>
</tbody>
</table>

Conclusion: This retrospective study shows similar clinical outcomes achieved regardless the type of rFSH used in ovarian stimulation, and no recombinant human FSH-biosimilar have been developed to provide a viable alternative for patients with the same efficacy and safety as FSH products used in IVF treatments.

P16 - 1555 OVARIAN GRANULOSA CELL TUMOR: A CASE REPORT
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Problem Statement: Granulosa cell tumors (GCT) are rare neoplasms with indolent behavior. They are characterized by long natural history and their tendency to recur years after the initial diagnosis. Clinical Case: We describe a case of a woman, 36 years old, gesta 2 para 2, that was referred to our hospital because she desired a sterilization. The patient had a history of stroke 3 years before and of a polypectomy the year before. She wasn’t undergoing any therapeutic. While doing the pre-operative workup for sterilization, was diagnosed a left adnexal cystic mass with 22x 40 mm with abnormal Doppler flow. The patient was asymptomatic, with no signs of virilisation, except presenting amenorrhea with 1 year of evolution. Serum FSH, estradiol and testosterone levels were in the normal range. Our group proposed a laparoscopic left adnexectomy and right salpingectomy. The histology revealed a solid tumor, suggesting an ovarian granulosa cell tumor adult type, with capsule invasion. To stage the disease, she had been offered a thoraco-abdomino pelvic computerized tomography, which didn’t reveal alterations. New estradiol levels were performed, with elevation (201, 8 ng/mL) comparing to the previous ones. Anti-mullerian hormone levels were normal. As the patient didn’t intend to preserve her fertility, she was advised to complete the staging surgery, including, total hysterectomy with right adnexectomy, peritoneal lavage and peritoneal biopsies. No intra- or post-operative complications occurred. The final histology didn’t show any sign of malignancy. Our oncology group proposed a bleomycin, etoposide and cisplatin chemotherapy schedule and arranged a trimester pattern of follow-up. Conclusion: Surgery is the primary treatment modality for granulosa cell tumors, although the optimal management and follow up of these tumors are controversial.

P17-1454 AN EVALUATION OF THE USE OF G-CSF AS AN ADJUNCT TO IVF IN WOMEN WHO HAVE PREVIOUSLY FAILED ATTEMPTS AT PREGNANCY WITH IVF
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Problem statement: For some, pregnancy by standard In Vitro Fertilisation (IVF) is not an option, even if ovulation induction and embryo development is successful. This may be due to defective implantation. A thin endometrium is associated with implantation failure. Studies show that improved endometrial thickness increases the probability of successful IVF. Objectives: To evaluate the effects of Granulocyte Colony Stimulating Factor (G-CSF) as an adjunct to standard IVF. The study looked at the influence of G-CSF on achievement of pregnancy as well as its effects on the endometrium. Methods: This was a retrospective cross-sectional study of a subgroup of women attending BioART Fertility Centre, who had two or more failed IVFs previously. These women underwent a procedure of transvaginal instillation of G-CSF in addition to their IVF protocol. Endometrial thickness was not a criterion for its use.
The 25th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)
Vienna, Austria • November 30 - December 2, 2017

Results: The group consisted of 49 women, mean age 38.9 (SD ± 6.11). Mean number of previous IVFs was 3.1 (SD ± 1.76). Mean endometrial thickness pre-GCSF was 7.53mm (SD ± 2.69) and post-GCSF was 9.11mm (SD ± 2.12). The clinical pregnancy rate was 34.69%. Univariate analysis between those that achieved pregnancy and those that didn’t showed that the age difference between the groups was statistically significant (p-value 0.0005). G-CSF use was associated with increased pregnancy rates in younger women. Mean endometrial thickness pre-and post-GCSF between the groups was not statistically significant (p-value 0.059). However, the mean change in endometrial thickness in all women regardless of pregnancy outcome was statistically significant (p-value 0.0029).

Conclusion: G-CSF is a useful adjunct to IVF treatment for women with a history of three failures. Further research is required to ascertain the association between G-CSF use and pregnancy rates and pregnancy outcome.

Key words: G-CSF, IVF, endometrium, pregnancy.

P18-1232
UNUSUAL PRESENTATION OF UTERINE RUPTURE FOLLOWING LAPAROSCOPIC MYOMECTOMY: A CASE REPORT AND LITERATURE REVIEW
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Problem statement: Laparoscopic myomectomy is preferred to the laparotomy approach as the former promises a better postoperative course, with fewer complications and faster recovery. It is increasingly performed in younger women in recent years. However, although rare, uterine rupture is an important and dangerous complication. Case Introduction: We report a case of 36-year-old lady who presented at 23 weeks and 4 days’ gestation of an in vitro conception, scar integrity, method of repair, and the use of prophylactic C-sections to show any association. In all 23 studies in 2367 pregnancies after myomectomy and found the endometrial thickness pre- and post-GCSF between the groups was 34.69%. Univariate analysis between those that achieved pregnancy and those that didn’t showed that the age difference between the groups was statistically significant (p-value 0.0005). G-CSF use was associated with increased pregnancy rates in younger women. Mean endometrial thickness pre-and post-GCSF between the groups was not statistically significant (p-value 0.059). However, the mean change in endometrial thickness in all women regardless of pregnancy outcome was statistically significant (p-value 0.0029).

Conclusion: G-CSF is a useful adjunct to IVF treatment for women with a history of three failures. Further research is required to ascertain the association between G-CSF use and pregnancy rates and pregnancy outcome.

Key words: G-CSF, IVF, endometrium, pregnancy.

P19-1155
DELIVERY LATENCY AND PLACENTAL CORD INSERTION IN PRETERM LABOR WITH SINGLETON PREGNANCY
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Problem statement: Placenta with non-central cord insertion has a sparsely chorionic vascular distribution, which decreases transport efficiency. Our aim is to compare delivery latency in preterm labor women per their placental cord insertion. Methods: We conducted a retrospective study of placental characteristics in delivered women with singleton pregnancy between 24-42 weeks of gestation. 110 women were delivered 37 weeks and 112 women were delivered at term (37 weeks). Velamentous cord insertion, twin, palacenta previa, abruptio placenta, fetal anomaly, uterine anomaly, and preterm birth (PTB) with medical or surgical indication were excluded. Periperal insertion of umbilical cord (PIUC) was defined ≤ 3cm from placental edge. Multiple regression analysis was used for statistical analysis. Results: Cord insertion and PIUC were not significant difference between PTB and term birth (4.02±2.26 vs 4.96±2.57 cm, 4.6% vs 36.4%, respectively). However, PIUC had shorter delivery latency than non PIUC in preterm birth and preterm premature rupture of membrane (3.00±3.69 vs 9.82±17.2 day, p=0.031). Cord insertion was a significant factor for delivery latency (3.55±1.44, p=0.017). Conclusion: PIUC is associated with short delivery latency in preterm singleton pregnancy. Placental cord insertion site should be evaluated at ultrasonographic examination of women with preterm labor.

P20-1249
THE EVALUATION OF THE FAMILY TREES OF PATIENTS DIAGNOSED WITH GESTATIONAL DIABETES MELLITUS REGARDING DIABETES
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Problem statement: Pregnant women with a history of diabetes mellitus in their families are in the risk group for gestational diabetes mellitus. Purpose: This study was planned to evaluation the first degree and close relatives of pregnant women who were diagnosed with gestational diabetes mellitus, and to evaluate their predilection for gestational diabetes mellitus. Methods: This descriptive and cross-sectional study was conducted between the months of July and December 2016 in a Women and Child Disease Research and Training Hospital in the city of Istanbul with the participation of 91 women who presented to the diabetes nurse for pregnancy-related complications. Data was collected through the completion of the questionnaires developed by the researchers via face to face interviews, and this data was then evaluated. The SPSS 21.0 program was used in the evaluation of research results. Results: The mean age of the 91 pregnant women in the context of the study who were diagnosed with gestational diabetes mellitus was 32.41±4.88, while their mean weight was 79.80±13.31 and their mean height was 1.64±0.09. Among the pregnant women who were diagnosed with chronic diabetes 23.1% were primipara, and 34.1% of those who were multipara were found to be diagnosed with gestational diabetes mellitus in their previous pregnancies. 26.4% of the women were found to use tobacco before pregnancy, 11% were found to continue smoking, 47.3% to have a diet list for gestational diabetes, 37.4% were found to eat their diets, and 63.7% were found to predominantly eat fruit and vegetables. 93.4% of the pregnant women were found to regularly visit for antenatal controls during pregnancy. When the presence of chronic diseases before pregnancy were checked, it was found that 78% had no chronic disease, 13.2% had thyroid related chronic diseases, 8.8% had other chronic diseases such as anemia and high blood pressure, and that 16.5% had a medication they regularly used. Among the pregnant women who were diagnosed with gestational diabetes, 35.2% had diabetes in their mother, 36.3% in their father, 9.9% in their sister, and 7.7% in their brother. When the status of pregnant women with gestational diabetes mellitus and diabetics regarding the presence of diabetes in their relatives from their mother’s side was examined, the rate of having the disease in their relatives was found to be 51.6%. Among those, 9.6% had diabetes in their aunt, 19.6% in their uncle, 20.6% in their non-auntmother and 9.1% in their non-unclefather. When the
status of pregnant women with gestational diabetes regarding the presence of diabetes in their relatives from their father’s side was examined, the rate of having the disease was found to be 58.2%. Among those, 27.5% had diabetes in their aunt, 16.5% in their uncle, 19.8% in their grandmother, and 7.7% in their grandfather. Only 17.58% of the women didn’t have a diagnosis of diabetes in their relatives. Conclusions: When pregnant women with gestational diabetes were examined regarding a diagnosis of diabetes in their first degree and close relatives, pregnant women with diabetes in their father’s side were found to be higher in number. Thus, such patients can be suggested to be monitored closely for gestational diabetes mellitus from the start of pregnancy. Keywords: Gestational diabetes, Type II diabetes, Familial prediction.

P21-1303 WHAT IS THE PROGNOSIS OF WOMEN WITH POLYCYSTIC OVARIAN SYNDROME COMPARED TO OTHER WOMEN OF SIMILAR AGE IN FERTILITY UNITS?

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Problem statement: Polycystic ovarian syndrome (PCOS) is one of the most frequent endocrinological disorder in women, being its pathophysiology associated ovarian dysfunction with oligo-ovulatory and anovulatory cycles. Ovarian steroidogenesis dysfunction often requires assisted reproductive techniques (ART), being repeated and characteristic, ovarian response. PCOS is a multi-systemic entity associated to ovarian endocrinological disorder and long-term complications as type 2 diabetes, obesity and cardiovascular complications. PCOS may be associated with higher risk of infertility, low serum folates, higher levels of pro-atherogenic inflammatory mediators and unfavorable lipid, carbohydrate and lipoprotein profiles that mimic metabolic syndrome and that needs to be fixed before undergoing an ART procedure. Methods: We present a retrospective cross-sectional study set in the fertility unit (FU) in Hospital 12 de Octubre, Madrid, Spain. We included 204 women between January 2015 and June 2016. 102 were selected consecutively as they were diagnosed of PCOS according to Rotterdam criteria and constituted group 1. Group 2 was integrated by 102 control patients matched by age and enrolment on FU. Techniques performed were either intra-uterine insemination (IUI) or in vitro fertilization (IVF) depending on the patient’s characteristics. Requirement to ART in our unit is to have an adequate metabolic status: body mass index (BMI)<30kg/m² and glycemic insulin levels and blood pressure within normal values. If those criteria are not met, dietary and exercise recommendations are given and medical treatment started if non medical factors (antihyperensive or metformin). As a public hospital, ART are reimbursed, with limited indication criteria and 4-month delay to start IVF cycle and none for IUI. Results: Patients characteristics Previous abortion rate on the PCOS group was of 14.99%, mean(SE) BMI of 29.03(6.42) kg/m², antral follicle count of 22.89(5.67) and FSH levels of 6.24(5.3) mIU/mL. Out of the 102 diagnosed of PCOS, 91(12.25%) needed measures to improve their basal metabolic status and only 55(49.1%) reached and adequate one to start ART. 34% had obesity (BMI>30) and 43% managed to lose 10% of their weight reaching an overall pregnancy rate of 39% (spontaneous and with ART) compared to 17% in those who didn’t. When ART technique was required; that meant 190.76(SE=147.6) days of delay to start, compared to 100.77(SE=51.11) days in the control group where only 4.9% of the patients needed additional metabolic adjustment measures. When ART was allowed, 50.88% of PCOS patients started with IUI whereas IVF was preferred in 49.12%. Hyperstimulation rate (defined as need of a freezing all strategy) was of 4% and global pregnancy rate of 23.63%. On the rest of our patients, IAC was the starting ART on 21.56% and 78.44% started with IUI. Hyperstimulation rate was 1% and global pregnancy rate of 27%. Conclusions: Results on PCOS patients did not exceed those of the rest having longer waiting lists as most of them needed to reach an adequate basal metabolic status. Given that the metabolic basal status of patients with PCOS is key on the reproductive future of the woman as well as on the outcome of reproductive assisted techniques it is essential to educate younger teens to follow a healthy diet and exercise to meet the best basal status possible.

P22-1298 IMPACT IN CUMULATIVE PREGNANCY, LIFE BIRTH RATE, TIME TO PREGNANCY AND COST ANALYSIS OF OBTAINED EDOVIES IN A PUBLIC HEALTH SYSTEM IVF PROGRAM

Laura de la Fuente*, Elisa Escalante, Nerea Ruiz, Cecilia Villacastín, Raquel García, María Carrera, María Luisa Palomo

Obstetrics & Gynecology, Reproduction Unit, Madrid, Spain

Problem statement: Which should be the ideal number of oocytes to reach better cumulative life birth rate, time to pregnancy and costs results in an IVF program? Response to controlled ovarian stimulation (COS) is related to pregnancy and life birth rate. Considering the number of obtained oocytes patients could be classified as low (0 to 3 oocytes); sub-optimal (4 to 9); normo (10 to 15) or high (15) responders. Cumulative pregnancy rate is a more realistic measure the effectiveness of an IVF cycle as frozen embryos may give extra-chances of pregnancy and a freezing all policy can avoid OHSS risk. In a public center, with a long waiting list and financial limitations, it seems important to evaluate global costs, time to pregnancy and effectiveness of ovarian responses.

Methods: This is a retrospective observational study of 528 IVF cycles performed in Human Reproduction Unit, G & D Department, 12 de Octubre Hospital in 2015. Frozen cycles derive from the initial COS where considered for cumulative pregnancy rate when all embryos had been thawed for transfer. Patients were divided in 4 response categories: low, sub-optimal, normo or high responders (LR, SR, NR, HR) per the number of collected oocytes regardless of the COS protocol. It is a public health institution where couples with prior history of sterility are accepted under 40 years for the woman with no economical charge for the patient. Transfer was performed at cleavage state; Freeze all policy was recommended in case of risk of OHSS and decided per patient, technician and gynecologist, with a slow freezing technique. Costs were analyzed for OHSS needing hospitalization (as no other complication appeared) and for differed transfer cases. Results: 21.09% patients were LR with 0 to 3 oocytes, 46.59% SR with 4 to 8, 24.81% NR, with 9 to 14 and 7.07% LR per the number of collected oocytes regardless of the COS protocol. It is a public health institution where couples with primaries of infertility are accepted under 40 years for the woman with no economical charge for the patient. Transfer was performed at cleavage state; Freeze all policy was recommended in case of risk of OHSS and decided per patient, technician and gynecologist, with a slow freezing technique. Costs were analyzed for OHSS needing hospitalization (as no other complication appeared) and for differed transfer cases. Results: 21.09% patients were LR with 0 to 3 oocytes, 46.59% SR with 4 to 8, 24.81% NR, with 9 to 14 and 7.07% LR per the number of collected oocytes regardless of the COS protocol. It is a public health institution where couples with primaries of infertility are accepted under 40 years for the woman with no economical charge for the patient. Transfer was performed at cleavage state; Freeze all policy was recommended in case of risk of OHSS and decided per patient, technician and gynecologist, with a slow freezing technique. Costs were analyzed for OHSS needing hospitalization (as no other complication appeared) and for differed transfer cases. Results: 21.09% patients were LR with 0 to 3 oocytes, 46.59% SR with 4 to 8, 24.81% NR, with 9 to 14 and 7.07% LR per the number of collected oocytes regardless of the COS protocol. It is a public health institution where couples with primaries of infertility are accepted under 40 years for the woman with no economical charge for the patient. Transfer was performed at cleavage state; Freeze all policy was recommended in case of risk of OHSS and decided per patient, technician and gynecologist, with a slow freezing technique. Costs were analyzed for OHSS needing hospitalization (as no other complication appeared) and for differed transfer cases. Results: 21.09% patients were LR with 0 to 3 oocytes, 46.59% SR with 4 to 8, 24.81% NR, with 9 to 14 and 7.07% LR per the number of collected oocytes regardless of the COS protocol. It is a public health institution where couples with primaries of infertility are accepted under 40 years for the woman with no economical charge for the patient. Transfer was performed at cleavage state; Freeze all policy was recommended in case of risk of OHSS and decided per patient, technician and gynecologist, with a slow freezing technique. Costs were analyzed for OHSS needing hospitalization (as no other complication appeared) and for differed transfer cases. Results: 21.09% patients were LR with 0 to 3 oocytes, 46.59% SR with 4 to 8, 24.81% NR, with 9 to 14 and 7.07% LR per the number of collected oocytes regardless of the COS protocol.

Conclusions: Time to pregnancy was significantly longer and persistent risk of OHSS increased incidence and persistent risk of OHSS. Cumulative pregnancy rates favor good responder vs low responders (p<0.001) whereas time to pregnancy was 28.47+/-1.58 days in LR vs 34.83+/-10.3 days in SR, 55.92 +/- 81.42 in NR and 162.19 +/- 138.52 in HR (p<0.0001). Costs analyses considering drugs, complications and need of differing embryo transfer was inversely correlated to ovarian response (p<0.05). Limitations, reasons for caution: Analyzing retrospective data may have some limitations. Time to pregnancy is to be considered with caution, as non-medical factors were included. Similarly, cost analysis was limited to main expenses. Besides, if more severe case of OHSS appeared, needing intensive cares assistance, cost analyzes could dramatically change.

Conclusion: This study gives updated prognoses information to patients, showing the more oocytes the best pregnancy expectations. Cumulative pregnancy rates favor good responder patients, with overall costs inferior to other patients besides segmented cycle increased incidence and persistent risk of OHSS.

P23-1369 INFLUENCE OF POST-THAW CULTURE ON THE CLEAVAGE STAGE EMBRYO DEVELOPMENT AND THE PREGNANCY RATE/H4

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Problem statement: Cryotransfers success rate is related with many known factors like embryo quality, maternal age, number of transferred embryos and implantation potential, as well as the number of previous cycles by blastomere survival and embryo development. Many authors have related mitotic resumption with better prognosis and stop embryo development with lower success. The aim of the presented study was to evaluate the influence of culture procedure for the frozen embryo transfer (FET) but in the in vitro culture conditions may not exactly replace the physiological
COMPARISON OF TWO SPERM PROCESSING TECHNIQUES FOR ICSI: SPERM SWIM-UP AND DISCONTINUOUS DENSITY GRADIENT CENTRIFUGATION

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Problem statement: Usually sperm capacitation in assisted human reproduction is performed in IVF laboratories using two specific techniques trying to imitate the in-vivo female genital track. The capacitation technique divides our study and the final ART procedure. The effectiveness of one sperm capacitation. The method is selected per the sperm quality sample and the post-processing concentration of motile sperm rates is required could be justified in semen samples for ICSI even though ART in which higher post-processing concentration rates are observed.

Methods: This is a retrospective study, of 357 semen samples capacitated for ICSI procedure at the Human Reproduction Unit of Hospital Universitario 12 de Octubre, Madrid, Spain, in a public IVF programme. The capacitation technique used divided our study in two groups: 170 samples were processed using swim-up and 187 with discontinuous density gradient. Seminal parameters were analyzed before and after processing. During 2015-2016 period, 357 semen samples were capacitated at the Human Reproduction Unit of Hospital Universitario 12 de Octubre, Madrid, Spain, in a public IVF programme. All of them were used in ICSI procedure. The capacitation technique divided our study in two groups: 170 samples were processed using swim-up and 187 with discontinuous density gradient. Seminal parameters were analyzed before and after processing. Results: Improvements of the concentration of motile sperm were observed with both used techniques. Discontinuous density gradient centrifugation improved concentration recovery rate reaching statistically higher levels than swim-up procedure (13.51 ± 10 % vs 8.16 ± 10 %) (p ≤ 0.01). This marked difference respecting the two protocols doesn’t affect other cycle variables analyzed: fertilization rate (61.88 vs 59.75%), number of embryos per patient (2.36 vs 2.36), good quality embryos per patient (0.98 vs 0.98) (p ≤ 0.01). Neither pregnancy rate nor implanta

Conclusion: When only a few spermatozoa need to be selected, as it is the case in ICSI technique, sperm selection with discontinuous density gradients has no effect in cycle outcome parameters. Election of sperm processing technique for ICSI should be based on other kind of parameters: availability, costs, lab organization. Number of cycles and the retrospective nature of the design are main limitations of our study; it would be interesting to study longer series of patients that support our findings, ideally in a randomized controlled prospective design. Similar analyses in subgroups of sperm quality different conditions may show different results.

P25-1371
CLINICAL SIGNIFICANCE OF ATYPICAL SQUAMOUS CELLS OF UNDETERMINED SIGNIFICANCE IN DETECTING PRENEVasive CERVICAL LESIONS IN PRE-AND POST MENOPAUSAL ALBANIAN WOMEN
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Background: To evaluate the clinical significance of atypical squamous cells of undetermined significance (ASCUS) in PAP test in post-menopausal women and compare with pre-menopausal women. Methods: A total of 500 patients who referred to our gynecologic clinic in "Mbreteresa Geraldine" Hospital, Tirane, Albania, were included to the study between January 2012 and August 2014. Data for 194 post-menopausal (group 1) and 306 pre-menopausal (group 2) women with ASCUS cytology were evaluated. Patients interventions: Immediate colposcopy and endocervical curettage was performed for both groups and contraception for all women with a result suggestive of CIN 2-3. HPV –DNA were assessed for all woman. Main outcome measures: Histopathological results and demographic features of patients were compared between the two groups. Results: Mean age of the patients was 54.6±6.5 years in group 1 and 38±6.6 years in group 2. Some 19 (9.4%) of post-menopausal women and 49 (15.9%) of pre-menopausal women were current smokers. No one was suffering from another disease. Totals of post-menopausal and pre-menopausal women were assessed for HPV-DNA. High risk HPV-DNA testing was performed by polymerase chain reaction (PCR) with p17M/p27R2 primers in GENOMA Laboratory, Rome, Italy. High risk HPV was detected in 27 (14 %) and 85 (28 %), respectively (p=0.029). Final histopathological results were recorded normal cervix, low grade cervical intra-epithelial neoplasia (CIN 1), and high grade cervical intra-epithelial neoplasia (CIN 2-3). DNA detection were 84.8%, 12.2% and 1.8%, respectively, and in group 2 were 71.9%, 23.2% and 4.9%. Two cases were detected as micro-invasive carcinoma in group 1 (1% of post-menopausal women) detected as endometrial carcinoma in the menopausal group (0.6 %). Conclusions: In the current study, we found that prenevasive lesions were statistically significantly higher in pre-menopausal women than post-menopausal women with ASCUS. High risk HPV were significantly higher in pre-menopausal women. Cervicitis was more common in menopausal women.

P26-1380
INCIDENCE OF PREECLAMPSIA IN ALBANIAN WOMEN, ESTIMATED IN "MBRETERESA GERALDINE" HOSPITAL IN PERIOD 2015-2017
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Introduction: Preeclampsia is a hypertensive disorder with a multi-organ affection, that affects 3-5% of all pregnancies. Preeclampsia is a major cause of maternal morbidity and mortality, perinatal mortality and neonatal outcomes. Methods and patients: We carried a retrospective study at "Mbreteresa Geraldine" Maternity Hospital, by analyzing 241 pregnancies with Preeclampsia that gave birth at "Mbreteresa Geraldine"
Maternity in, year 2015, 2016 and January-March of 2017. 432 pregnant women with Preeclampsia were followed up. After a meta-analysis, we established the incidence of Preeclampsia related complications in pregnant women, maternal morbidity and mortality and foetal mortality, foetal prematurity and its birth weight. Results: The incidence of Preeclampsia in 2015 was 2.60%, in 2016 it was 3.14% and so far, in 2017 it is 1.6%. The most common age distribution for younger pregnant women (15-18 years old) and older women (37-41 years old). The highest incidence, in 144 births, is estimated in primiparous women with Preeclampsia. A lower incidence is noticeable in pluriparous women, with the percentage lowering with every birth. From statistical evidences, the highest percentage of gestational age is the one on full term; specifically, 181 women gave birth on time (36-42 gestational week) for year 2015, 182 women for year 2016 and 30 women for January-March period in 2017. Conclusions: Preeclampsia is a rare pregnancy related disorder, with an unpredictable course, that can be fatal for the mother and the child. The incidence of the disease in "Mbretëresha Geraldinë" Maternity, in the years that we took into consideration, was approximately 2.6.

PZ7-1243 OPTIMAL ECONOMIC EVALUATION IN FERTILITY PRESERVATION WITH SPRMs
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Problem statement: Women wishing to preserve fertility in anticipation of a pregnancy may undergo a pre-pregnancy surgical intervention followed by recovery period which impacts attempt to conceive. Selective progesterone receptor modulators (SPRMs) are recently approved therapeutic agents. Thus, the problem of the cost-effectiveness of SPRMs vs. no treatment in fertility preservation. Women in the comparator arm may or may not undergo elective and/or re-surgery, excluding hysterectomy and so any artery embolization. In the treatment arm no concomitant medication is included. All costs are determined based on the payer’s perspective, without indirect costs, adverse events and absenteeism. EQ-SD utility weights, i.e. pain (VAS) and bleeding (PBAC) levels for each treatment are used to assess quality of life. Main endpoint is the incremental cost-effectiveness ratio (ICER) per a quality-adjusted life year (QALY) gained as the most widely recommended tool cost-effectiveness evaluation. Results: The use of SPRMs increases average life years and gains an average of 0.04 QALY while modestly raising costs. As costs per interventions vary from country to country, once adapted from hospital episode statistics database or other official sources, the result for ICER per QALY may well be below either the fixed threshold of 20-30 000 € or the WHO CHOICE recommendation for a 3 times GDP level. However, for countries with middle or less income, ICER per QALY can be too high if such threshold is binding in economic evaluation. Conclusion: Judgements about which medications are cost-effective based only on cost per QALY are potentially counterintuitive. QALY paradigm, called also "QALY egalitarian" is empiric by nature, reacts merely on discounts and not reflecting the distribution of health effects. In a societal sensitive area, such as fertility preservation, this may entail negative decisions likely to reduce access to effective treatment and exacerbating inequalities, especially in countries with low and middle income.

P28-1522 EFFECTS OF SYNTHETIC KISSPEPTIN AND ITS ANALOGUES ON CELL LINES OF MALIGNANCIES OF FEMALE REPRODUCTIVE SYSTEM
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Kisspeptins are peptide products of KISS1 gene are known by their anti-metastatic and tumor-suppressive effects in various carcinomas. The ability of kisspeptin to inhibit the migration of trophoblast cells was shown in vitro. Synthetic kisspeptine already used to stimulate ovulation in IVF cycles and its anticanecrogenous effect could open a new opportunity to cure the cancer. In this study two analogues of kisspeptin-10 (KP-10) was synthesized, they difference from endogenous form was in replacement of the seventh glycine to D-alanine (KP-Ala) and D-tryptophan (KP-Trp). It is assumed that such modification increases the affinity of kisspeptin to its receptor (KISS1R) and eliminates the site of hydrolysis by matrix metalloproteinases, thereby prolonged half-life of a hormone. The aim of the study was to identify the KP-10 and its analogues effects on proliferation and apoptosis of human breast tumor cell line (BT-474 and MCF-7) and human uterine leiomyosarcoma cell line (SK-UT-1B). Materials and methods: Cell lines were cultured with addition of KP-10, KP-Ala and KP-Trp in concentration 10^{-5}M. After 36 hours of incubation they were fixed in paraformaldehyde and analyzed by immuno fluorescence technique to estimate proliferation rate (anti-Ki-67, 1:75, Dako) and level of apoptosis-associated proteins (anti-Bcl-2, 1:100, Novocastra; anti-p53 1:50, Dako, anti-caspase-3 1:400, Abcam, anti-caspase-8, -9 both 1:500, Dako). KISS1R-negative HeLa cell line were used as a control. Results: All kisspeptins significantly increased p53 level in all KISS1R-positive cell lines. Moreover, the reduced cell number and activation of caspase-3 and -9 in SK-UT-1B line was observed, whereas similar effect was provoked only by KP-Trp in BT-474. By influence of KP-10 and KP-Trp caspase-6 was activated in all types of tumor cells suggesting stimulation of apoptosis by death receptors like Fas. KP-Ala shows anti-proliferative effect in MCF-7 and BT-474. In case of MCF-7 cells kisspeptins caused the increase of p53 immunohistochemical expression without decrease of Bcl-2 protein and concomitant induction of apoptosis. Conclusion: Kisspeptin-10 and two analogues have proapoptotic and antiangiopiferative effect on tumor cell lines of female genital tract. The synthetic hormones affect cell lines in different manner it could be associated with sensitivity to estrogen, which is known for its antiapoptotic effects. KP-Trp showed the highest proapoptotic effect in cell culture.

P29-1561 DID BREAST SURGERY CHANGE ACCORDING TO THE GUIDELINES? AN INTERNAL AUDIT FOCUSING ON THE SURGICAL OUTCOME
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Problem statement: Over the last decade the recommendation for the tumor free margins has come down from 10mm to ‘no ink on tumor’. A similar development can be seen with the axillary lymphnode dissection (ALNE). At the end of the last millenium more removed lymph nodes were thought to be more beneficial to the
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survival of the patient. The introduction of the sentinel node biopsy (SNB) and further studies resulted in the current discussion if an ALNE is still necessary in certain circumstances. Our internal audit analysis over time the surgical quality variables ‘tumor free margins’, re-resection rate’ and ‘number of lymphnodes for SNB and ALNE’. Methods: Retrospective database analysis over a 10year period in our breast centre. Inclusion criteria were primary diagnosed breast cancer, final R0 resection and breast conserving surgery. Results: Figure 1 provides information regarding the number of cases, R1-rate and average tumor free margin over time. The tumor free margin increases over the first years as the gold standard was 10 mm but consecutively drops as publications and guidelines reduce. The rate of R1 resection peaks parallel to the tumor free margins and then also comes down to around 20% which is about the average over the time period. The rate of SNB increased also parallel with the broadening indication up to 63% (Figure 2). The conversation rate of SNB to ALNE drops in the last 2 years. The number of removed lymphnodes – as marker for long term post surgical problems – has been stable for SNB (min 1.8 LK; max 2.4 LK) and reduced over time for ALNE (min 11 (2013); max 20.6 LK (2006)) as shown in figure 2. Discussion: The implementation of surgical guidelines can be seen over time in the annual statistic of our breast center. Parallel to the recommendations the tumor free margin doubled and then dropped again. The increase of the tumor free margin triggered a higher re-resection rate to fulfill these criteria. Currently with ‘no-ink-on-tumor’ the re-resection rate is on the long-term average. More importantly from a patients’ viewpoint in terms of complications is the stable number of removed SN over time. This shows that SN can be identified clearly and regularly. Parallel to the current scientific discussion our data shows that surgeons have started to become less radical in ALNE. Interestingly the rate of SNB conversion to ALNE also drops which may be due to the improved diagnosis in axillary ultrasound and core needle biopsy. Conclusion: Our data shows that current surgical guidelines are slowly implemented in clinical day care and the effects can be seen over time. The next step should be the evaluation of the time from publication of new guidelines to the clinical implementation.

Figure 1: Overview of the variables over time with number of primary breast conserving breast cancers (BET-Fälle), R1-rate after primary surgery (%) and average tumor free margin (mm).

Figure 2: Overview of lymphnode variables with graphics for rate of SNB (%), number of removed LN at SNB (Ø LK SNB), at axillary dissection (Ø LK ALNE) and rate of positive LN leading to an ALNE (%; SNB-ALNE).

P30-1286 FACTORS IMPAIRING THE SUCCESS OF OUTPATIENT DIAGNOSTIC HYSTEROSCOPY – THE EXPERIENCE OF OUR CENTER

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Problem statement: Outpatient hysteroscopy is a minimally invasive procedure, largely used to investigate abnormal uterine bleeding (AUB) and other pathologies in both premenopausal and postmenopausal women. This procedure has many advantages such as its high success rates, good pathology detection, diagnosis and, eventually, treatment. Several studies have shown that office hysteroscopy by the vaginoscopic approach is a well accepted and tolerated procedure and has, in most of the cases, no need of analgesia or pain medication after the procedure. Moreover, it has a limited failure rate (less than 4%), mostly due to patient pain intolerance. Among the predictors for unsuccessful hysteroscopy described in the medical literature are nulliparity and postmenopausal status. The aim of this study is to assess factors impairing the success of outpatient hysteroscopy in our hospital.

Methods: A retrospective observational study was conducted, including all the patients who underwent an outpatient hysteroscopy during 2016, at Centro Hospitalar do Algarve – Faro. We included all the 177 patients. Statistical analysis was performed via χ² test or logistic regression. P value 0.05 was considered statistically significant. All statistical calculations were performed using SPSS® v20.0. Results: One hundred seventy-seven outpatient hysteroscopies were undertaken using the vaginoscopic approach with 4-5mm diameter instruments. Premedication for cervical preparation was self-administered as a gel as we did not use the vaginal suppository. The main cause for unsuccessful exam was AUB (108 cases), followed by asymptomatic endometrial thickening. Intrauterine Device and infertility. Ninety-four women were postmenopausal (53.1%), 31 never had a vaginal delivery (18.1%), 62 (36.3%) were obese, 71 (41.3%) had hypertension, 17 (9.9%) had diabetes mellitus type 2. Our failure rate was 15.8% (28 exams), being cervical stenosis the main cause for unsuccessful exam. In 3 cases, the exam was halted due to pain intolerance. Our study suggests that there is a correlation between premenopausal status and AUB (favoring the success of the procedure), and no significant correlation was found between age and parity. Moreover, there were no registered complications due to the procedure itself. Conclusions: This study enhances our understanding on relevant patient factors impairing the success of outpatient hysteroscopy, allowing us to do better patient counseling. Future studies should focus on strategies to improve the success of this technique.

P31-1392 NAUSEA AND VOMITING IN PREGNANCY - NOT ALWAYS WHAT IT SEEMS

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Problem statement: Nausea and vomiting are common symptoms in pregnancy, affecting 50-80% of pregnant women. The most severe form is called hyperemesis gravidarum. It occurs in 0.5-3% of pregnant women and presents with incoercible vomiting, weight loss exceeding 5% of the pre-pregnancy weight, dehydration, ketonuria, hypokalemia. However, when facing a pregnant patient complaining of vomiting, the diagnosis of vomiting associated with pregnancy or hyperemesis is one of exclusion. When there are atypical signs and/or symptoms, there should be a more in-depth examination, to exclude other causes and determine if they are associated with pregnancy or not. Methods: Case report. Case report: We report the case of a woman diagnosed with nausea and vomiting associated with pregnancy during the first trimester of pregnancy. On a second emergency episode in which she complained of nausea, vomiting and frontal headache she was hospitalized. She had signs of widespread malaise, excessive sweating and pallor. Her blood analysis was normal. However, she was admitted to the Obstetrics department for surveillance and symptomatic therapy. The same day she had seizures and was diagnosed with a cerebral neoplasia on a CT scan. She died few hours later despite the instituted medication. Hyperemesis gravidarum and infectious gastrointestinal diseases are the most common causes of nausea and vomiting in first trimester of pregnancy. However, we must consider the neurological/neurosurgical complications that can occur in this clinical context. The most common neurologic complications in pregnancy
are those secondary to arterial-venous malformations, aneurysms and preeclampsia. Brain tumors, however, are rare and, often, their diagnosis is delayed. The presenting symptoms with those of a normal pregnancy or its complications, such as headaches, nausea, vomiting, visual disturbances (due to mass effect). Nausea and vomiting associated with normal pregnancy tend to improve later in pregnancy, on the opposite those associated with brain tumors, may arise later, tend to worsen gradually, and may coexist with symptoms such as headache, visual disturbances or focal neurologic deficits. It is known that pregnancy does not alter the incidence of brain tumors and their prevalence reflects the same age group in the general population. However, hemodynamic and hormonal changes during the pregnancy may accelerate tumor growth at this stage, with the possible worsening of the signs and symptoms. **Conclusion:** This case displays the importance of a careful and critical approach to every pregnant woman. One should consider several differential diagnoses and to pay attention to the atypical signs and symptoms. The multidisciplinary discussion is also of crucial importance. In the case of brain tumors, early diagnosis can make a difference in the prognosis.

**P32-1234**
**COMPLICATIONS OF A MULTIPLE GESTATION – A CASE OF SPONTANEOUS QUINTUPLETS**

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**Problem statement:** Multi-fetal pregnancies present a great risk for both the mother and the developing embryos with a seven-fold greater maternal morbidity in multiple pregnancies as compared to the singletons. Multiple gestations are often associated with assisted reproductive technologies (ART) and must be regarded as a serious adverse event. More than 30% of pregnancies using ART in the developed countries are twin pregnancies or higher order multiple gestations (triplets or greater). Spontaneous multiple gestations, however, are very rare event with the natural incidence of triplets in the United States of 1 in 7925 pregnancies. Quadruplets are even more rare with the incidence of 1 in 600 000 pregnancies while the quintuplets probably occur only once in 15 to 20 million deliveries.

**Methods:** A case of 33-year-old Caucasian woman, G3P2, with two previous vaginal deliveries are presented, where a quintuplet pregnancy was diagnosed on a routine ultrasound examination. To collect all the necessary data, a full obstetric and ultrasound examination, the blood tests and the interview with the patient were performed.

**Results:** A 33-year-old pregnant woman with her third pregnancy (8 weeks) was admitted to the Cantonal Hospital Zenica at the Department of Obstetrics and Gynecology with the diagnosis of multiple pregnancy, fatigue, fever and vomiting. Patient’s history revealed previous 2 spontaneously conceived pregnancies, no history of polycystic ovary syndrome (PCOS), no fertility problems and no multiple gestations in her family. Emergency blood count: E 4,70, Hgb-14,1, Hct-0,39, MCV-83,5, MCH-30, MCHC-36, WBC-11,75, CRP -161, PLT -213, PT(s)- 12,4, PT -95, INR -1, APTT -38,5.

SPONTANEOUS QUINTUPLETS

**Objective:** To study the possibility of identifying a pre-operative biomarker for endometriosis.

**Material and methods:** The subjects were female patients aged between 18-45 years old who came to Gynecology outpatient clinic, Thammasat university hospital during September 2013 to 2016 with the complaint of gynecologic symptoms suspected of endometriosis. Those with positive endometriosis diagnosis by laparoscopy were recruited. All patients underwent operation via laparoscopy. Final diagnosis was all confirmed with histopathological report. The control group was healthy females of reproductive age who came to outpatient clinic. Blood sample was drawn and plasma was saved at -80°C. The activity of superoxide dismutase (SOD) in plasma was measured using a tetrizolium salt for detection of superoxide radicals generated by xanthine oxidase and hypoxanthine. The plasma glutathione peroxidase (GPx) activity was measured using a kinetic colorimetric assay that measured activity indirectly by coupled with glutathione reductase (GR). A receiver operating characteristic curve (ROC) was generated for plasma activity of SOD and GPx. The cutoff values then were selected at the most appropriate sensitivity and specificity. The area under the curve between the two tests was compared and test for statistical significance.

**Results:** All 42 cases were included in this study. Mean age of endometriosis and control groups were 33.1 and 28.6 years old, respectively. The SOD cut point was chosen at 6.0 nmol/min/ml. The appropriate cut point of the relationship between sensitivity and 1-specificity was chosen at 466 nmol/min/ml. The sensitivity and 1-specificity were calculated for the approximate cut point again; the accuracy was 78%.

**Conclusion:** A combination tests of SOD and GPx can probably be used as a preoperative biomarker for endometriosis.

**P34-1526**
**THE LEVEL OF CYTOKINES IN THE PERITONEAL FLUID IN WOMEN WITH EXTERNAL GENITAL ENDOMETRIOSIS**

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**Objective:** To study the possibility of spontaneous quintuplet pregnancy in a patient with no previous fertility problems and a potential superfecundation based on a different ultrasound images on a few repeated examinations. However, due to the patient’s infection and the well-known risk of multifetal pregnancies, this pregnancy ended in the first trimester. Patient was advised for the further evaluation of her gynecological and hormonal status before the next pregnancy because of these spontaneous quintuplets.
laparoscopic operations. The level of cytokines was determined by the ELISA method using the "cytokine" test systems (SPb, Russia). All women presented typical for genitourinary disorders complaints of dysmenorrhoea and pelvic pain. Studies have shown that the level of IL-6 in the peritoneal fluid of patients with EGE was higher than in the control group (20.4 ± 1.2 pg / ml versus 11.6 ± 1.05 pg / ml in the control) and was higher with EGE - I degree of severity in comparison with EGE III-IV severity (23.8 ± 1.1 pg / ml). The content of IL-10 in the peritoneal fluid was higher at grade III-IV than in the I- II severity stage of the control group. In the peritoneal fluid in patients with EGE was higher than in the control group and correlated with the severity of the disease. And the levels of IL-2 and TNFα in the peritoneal fluid in EGE patients were sharply reduced. The obtained data testify to the unquestionable participation in the development and progression of EGE cytokines, both pro-inflammatory and anti-inflammatory, that ensure the invasion of endometrial cells, the growth of endometriotic foci, the formation of a microcirculatory bed, the induction of inflammation. Consequently, the immunological changes in the peritoneal fluid are due to the already formed foci of endometriosis.

P35-1527
RESULTS OF A CLINICAL STUDY ON THE USE OF DYSMONORM IN TREATMENT OF PATIENTS WITH FIBROCYSTIC MASTOPATHY (FCM)
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As you know in the pathogenesis of diseases such as premenstrual syndrome (PMS) and dysmenorrhea and FCM lies the disregulation of the hypothalamic-pituitary-ovarian system (HPOS). To date, the Dysmonorm, which contains extract of the Agrus Castus with Pulsatilla praetensis and Apis mellifica is successfully used in the treatment of PMS and dysmenorrhoea. But until now no study has been conducted on its use in FCM. Having regard to the foregoing, the purpose of this study was to study the work of the HPOS in patients with FCM and to take for measures for its correction by using the Dysmonorm drug. During 2 years from 2015 to 2017, we conducted a randomized "case-control" study on the basis of the City Perinatal Center and City Maternity Hospital No. 3 in Tashkent on the use of Dysmonorm in patients with various forms of FCM. The study included only 53 patients of reproductive age (from 18 to 41 years) (average age 26.3 years) with various forms of FCM, verified by ultrasound examination of the mammary glands. 20 patients from them were diagnosed with fibrotic mastopathy, 23 - FCM, and 10 - with nodular mastopathy. The age of detection of mastopathy averaged 2.6 years. A study of breast cancer heredity showed that the mother’s breast cancer was found in 15 women, which was 28.3%, while 9 women (17.0%) had sister's breast cancer. Nearly half of the women had a pathology of the thyroid gland (45.2%). 9 women (37.5%) underwent hysterectomy and the thyroid gland (46.7%) and autoimmune thyroiditis (33.3%). The body mass index of 13 women of the study group increased by more than 30 and was 24.5%. Among gynecological diseases, polyps were recorded in 4 women (8.5%), ovarian cysts in 5 women (9.4%), as well as endometriosis-5 (11.6%), while FSH-20 (37.7%) and LH -7 (13.2%) significantly reduced. Rates of free thyroxin - 10 (18.9%) and progesterone - 41 (77.4%) tended to decrease. As a result of the research, we had 54 women with positive effect in clinical indicators and ultrasound control, which constitutes 79%. Positive clinical effect without improvement of ultrasound indicators was observed in 9 women, which constitutes 21%. Thus, FCM is a disease that has a high correlation with heredity, in terms of breast cancer. For conservative therapy of FCM, a significant clinical effect is achieved when using Agrus Castus with Pulsatilla praetensis and Apis mellifica which is presented in "Dysonorm" (tablets No 80).

P36-1088
DENOSUMAB AND CANCER CELL MIGRATION
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Denosumab, a human monoclonal antibody to receptor activator of nuclear factor-kB ligand, suppresses bone resorption and a potential treatment for bone destruction in metastatic cancer. Denosumab may have an additional effect on cancer than the previously demonstrated bone-protective effect. Explanations for the possibly longer survival with denosumab treatment in cancer patients include both indirect and direct effects on tumor cells. An indirect effect may derive from the autocrine relationship between tumor cells and the bone marrow in which both bone destruction and tumor growth are stimulated. In this relationship, tumor cells secrete different factors that promote production of RANKL. The increased expression of RANKL in the tumor environment leads to increased formation and survival of osteoclasts and results in osteolytic lesions. Osteolysis results in the release of growth factors derived from bone. These growth factors increase the production of parathyroid hormone-related protein or directly promote tumor growth. Another hypothesis is that denosumab may improve survival by directly inhibiting RANKL on RANK-expressing tumor cells. Denosumab has been demonstrated also for breast cancer cells in vivo and for several other tumor cell lines like lung cancer cells in vitro. RANKL inhibition may have a direct antineoplastic effect on lung cancer cells via apoptosis activity. Bone destruction increases local extracellular calcium concentrations, which have also been shown to promote tumor growth and the production of parathyroid hormone-related protein. Denosumab may indirectly affect skeletal tumor progression by targeting osteoclasts and disrupting this interaction between tumor cells and the bone microenvironment. RANKL inhibition has been shown to reduce bone metastasis in breast cancer cell lines. Preclinical evidence indicates that RANKL inhibition can reduce distant metastasis, and that this effect is potentially independent of osteoclast inhibition.

P37 - 1354
UNEXPECTED ANATOMICAL SITUS AFTER SURGERY FOR VESICOURETERAL REFLUX
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Problem statement: We present a 52-year-old woman with a history of surgery for vesicoureteral reflux (VUR) undergoing hysterectomy.

Methods: At eight years old, the patient received a Lich-Gregoir ureteroneocystostomy for VUR which has been demonstrated also for breast cancer cells in vivo and for several other tumor cell lines like lung cancer cells in vitro. RANKL inhibition may have a direct antineoplastic effect on lung cancer cells via apoptosis activity. Bone destruction increases local extracellular calcium concentrations, which have also been shown to promote tumor growth and the production of parathyroid hormone-related protein. Denosumab may indirectly affect skeletal tumor progression by targeting osteoclasts and disrupting this interaction between tumor cells and the bone microenvironment. RANKL inhibition has been shown to reduce bone metastasis in breast cancer cell lines. Preclinical evidence indicates that RANKL inhibition can reduce distant metastasis, and that this effect is potentially independent of osteoclast inhibition.

References:

P38-1415
OBSTRUCTION OF THE URETER BY ENDOMETRIOSIS: A CASE REPORT
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Problem statement: The prevalence of endometriosis (6-10%) is not a rare disease. However, the incidence seems to be higher due to the often-long delay until the diagnosis. An affection of the urogenital system is rare (1-5%), but nevertheless as differential diagnosis important. Methods: A 34-year old woman presented herself with repetitive pain on the right flank to exclude a suspected congenital
urethral stenosis. A previous magnetic resonance imaging showed a hydronephrosis on the right without detection of a cause of ureteral obstruction. The obstruction occurred only during menstruation. Results: The filiform ureteral stenosis diagnosed in the retrograd uretero-cystography was treated by the dilatation and placement of a double-J catheter. The histological findings of the ureteral biopsy showed an unspecific inflammation without endometriosis. Because of persisting pain extended and cycled diagnostics with ultrasound and magnetic resonance imaging were carried out and showed a nodular endometriotic implant of 3cm in the right broad ligament. The endometriotic implant spread around the right ureter and led to ureteral obstruction despite double-j-catheter. So, a hormonal treatment with a gestagen-only pill was introduced. In the following diagnostic laparoscopy the appendix vermiformis was also suspected of endometriotic implants and therefore removed. In the same surgery, the resection of the impaired distal ureter with intravesical re-implantation (Politano-Leadbetter-Procedure) was successfully performed. In the follow-up care (after 10 days) the micturating cystourethrogram and the voiding cystourethrogram (after three months) showed no vesicoureteral reflux and a normal bladder voiding. The hormonal treatment was carried on.

Conclusion: If a young woman in reproductive age suffers from ureteral obstruction, it is pivotal to think of endometriosis as a differential diagnosis after excluding the most frequent causes such as kidney stones or tumours. The prognosis of extrinsic ureteral obstruction may be seen under an intrinsically endometriosis of the ureter. Overall it is crucial to continue the hormonal treatment.

P39-1528
AN UNUSUAL CASE OF SUDDEN COMPLETE URINARY INCONTINENCE 20 DAYS AFTER PELVIC FLOOR SURGERY AND TENSION-FREE VAGINAL TAPE

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Problem statement: Tension-free midurethral synthetic slings are a minimal invasive treatment of stress urinary incontinence. If urinary incontinence occurs in combination with pelvic floor disorder, a combined treatment must be considered. We describe a case of sudden complete urinary incontinence 20 days after pelvic floor surgery and mid-urethral sling operation. Methods and Results: An 81-year-old woman presented herself with disturbing stress urinary incontinence and symptomatic pelvic organ prolapse in our outpatient clinic. In the past, her stress urinary incontinence was treated with an incontinence ring pessary until the pelvic organ prolapse increased and the pessary dislocated. 30 years before she had had an abdominal hysterectomy and presumably a colposuspension. During the examination, a further pelvic floor disorder comprising of vaginal vault prolapse, cystocele, enterocele, distal rectocele and anterior rectocele with stool-obstructed defecation was diagnosed. In a urodynamical study, the stress urinary incontinence could be confirmed. To repair the symptomatic pelvic floor disorder the patient required an anterior and posterior colpopathy, vaginal repair of enterocele and anterior rectocele. Additionally, a tension-free midurethral sling (retropubic tension-free vaginal tape, TVT) was implanted because of stress urinary incontinence. Seven days after the operation the patient restarted taking acetylsalicylic acid (100mg) because of cardiac indication. After an uneventful first follow-up examination 14 days after the surgery with sonographic correct position of the TVT, the patient reported 20 days later with suddenly occurred complete urinary incontinence. The clinical and sonographic examinations showed a new haematoma of the vaginal vault and the anterior vaginal wall with consequent dislocation of the TVT. Four months later the haematoma had slightly become smaller and the urinary incontinence had improved. Conclusion: The occurrence of vaginal vault haematoma 20 days after pelvic floor repair is unusual even in combination with the intake of acetylsalicylic acid. The volume of the haematoma and the dislocation of the TVT, which resulted in complete urinary incontinence. But when the haematoma absorbed, the incontinence improved. Once the TVT dislocated by haematoma, it might not be properly placed again its absorption. If there is still some incontinence after the entire absorption of the haematoma, the placement of a new TVT could be considered.

P40-1355
AGGRESSIVE ANGIOMYXOMA OF THE PERINEUM IN A 50-YEAR-OLD WOMAN

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Problem statement: Aggressive angiomyxoma (AA) is a rare soft tissue mesenchymal tumor, locally infiltrative with a tendency to repeated local recurrence. The first description was in 1983. It occurs normally in the vulvovaginal region, perineum and pelvis of females in reproductive age. But there are rare cases of AA in the inguinoscrotal region of males. Metastasis has been described. Local wide excision of the tumor is the primary management. The local recurrence rate is 25 to 47%. The expression of estrogen and progesterone receptors in AA suggests a hormone dependency of the tumor. Descriptions of medicament treatment exist with gonadotropin-releasing hormone agonists. Methods and Results: A 50-year-old woman reported first in 2013 with a painless swelling of 3x2cm at the perineum. She underwent surgical excision. Pathologic findings reported the tumor as an AA. The margins were not tumor free. The patient didn’t appear to the follow-up examinations. In 2016, she reported again with a painless swelling of 2x2cm at the perineum and underwent a local wide resection. The tumor was deep in the perineal tissue and for a complete resection it was necessary to resect a part of the bulbouspousous muscle and the soft tissue of the perineum above the rectum. Then the perineal part had to be reconstructed. The wound healing was without difficulties; resection margins were light tumor free and the immunohistochemical examination showed a hormonal receptor positivity of estrogen and progesterone. Conclusion: AA is a rare disease, but when treating women with a painless swelling in the vulvovaginal region or perineum or pelvis AA should be considered as a differential diagnosis. There is no standardised surgical procedure described, but complete resection seems to be important. Even if tumor free margins were not achieved a recurrence didn’t occur. In literature, a hormonal treatment with GnRH agonists is discussed to reduce the extent of surgical radicality and enhance the chance for tumor free margins or as a therapy for several recurrences.

P41-1375
PREGNANCY RATE OF FROZEN EMBRYO TRANSFER PATIENTS AND ITS RELATED FACTORS

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Problem: Frozen Embryo Transfer (FET) is an embryo transfer method on in vitro fertilization that has advantage compared to fresh embryo transfer (ET) because it does not need ovulatory stimulation. Several studies have been done to compare pregnancy rate outcome of FET and ET, but the results show different number and significance. Methods: The research was retrospective cohort study and used 268 medical record datas in Obstetry and Gynecology Department of Cipto Mangunkusumo National Hospital. Pregnancy was measured by hCG level over 50 mIU/mL on day 15. All results were statistically analysed by SPSS 21.0, using chi-square test to know the relation of embryo transfer method and pregnancy rate. The other factors that affect the pregnancy rate were also analyzed with multivariable logistic regression method. Results: The result showed FET pregnancy rate (39,6%) was higher than ET (38,2%) but not statistically significant (p=0,803). Factors that had significant correlation with pregnancy rate were ovary problem, decreased ovarian reserve, and male infertility problems. Conclusion: FET pregnancy rate is not statistically different compared to ET. Ovary problem, decreased ovarian reserve, and male infertility problems are related factors of the pregnancy rate.

P42-1323
AMNIOTIC FLUID AND CERVICAL MMP-8 AND IL-6 LEVELS IN PRETERM PREGNANCIES WITH PPROM OR INTACT MEMBRANES

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Problem statement: Preterm delivery is a major cause of perinatal morbidity and mortality, and associates with intra-amniotic inflammation (IAI). IAI is defined by elevated inflammatory biomarkers in amniotic fluid (AF), either with microbial invasion of the
amniotic cavity (MAC) or as a sterile inflammation. Although the MAC status of AF is of interest in a clinical setting, also iAI without MAC occurs quite frequently with poor perinatal outcome. We evaluated collagen cleaving enzyme matrix metalloproteinase-8 (MMP-8) and pro-inflammatory cytokine interleukin 6 (IL-6) concentrations in cervical and AF samples. Aminocentesis being an invasive procedure, we wanted to assess if elevated pro-inflammatory marker levels could be detected also from cervical fluid samples.

Methods: This prospective study was performed at the Department of Obstetrics and Gynecology, University Hospital, Helsinki, Finland between June 2013 and November 2016. A total of 64 women with singleton non-diabetic pregnancies between 22+0 and 37+0 weeks of gestation with AF and cervical samples were enrolled. Both patients with PPROM and with intact membranes (IM) before sampling were included. MAC was defined as a positive AF culture or bacterial 16S RNA gene sequencing. MMP-8 was quantified with a solid-phase immunoenzymometric assay and IL-6 with commercial ELISA. Statistical analyses were performed using SPSS v.24.

Results: Overall 24 (38%) women had PPROM. Aminocentesis was performed to 52 (81%) women due to suspected iAI and 21 (40%) of them had MAC. Median concentrations of AF-MMP-8 and AF-IL-6 were higher in patients with PPROM than in those with IM (544 µg/l [range 8.2-16166] and 9.15 µg/l [range 2.1-9753], p<0.001) and [14.75 ng/ml (range 0.5-367) and 0.9 ng/ml (range 0.1-576), p<0.005], respectively. Median cervical MMP-8 and IL-6 concentrations did not differ between those with PPROM and IM. In iAI cases, cervical MMP-8 levels correlated with AF-MMP-8 (n=0.480, p<0.002) but cervical IL-6 did not with AF-IL-6 (n=0.270, p=0.092). In PPROM cases, no statistical correlation occurred. In PPROM cases, the median concentrations of AF-MMP-8, AF-IL-6, cervical MMP-8 or cervical IL-6 did not differ between patients with or without MAC. In contrary, in case of IM patients with MAC (n=11), median concentrations of AF-MMP-8, AF-IL-6 and cervical MMP-8 were higher than in those without MAC (n=29) [1483 µg/l (range 144-9754) and 7.2 µg/l (range 2.1-1290), p<0.001] [298 ng/ml (range 5.6-576) and 0.6 ng/ml (range 0.1-12), p<0.001] and [1845 µg/l (range 860-6344) and 440 µg/l (range 7.8-7598), p<0.001]. However, this did not apply to cervical MMP-8 and IL-6.

Conclusion: Cervical MMP-8 correlated with AF-MMP-8 in IM patients. IM patients with MAC had higher concentrations of cervical MMP-8, AF-MMP-8 and AF-IL-6, although no clear correlation between the measured cervical and AF markers were found. However, no correlations were detected for women with previous PPROM. Per our results, cervical MMP-8 and IL-6 could predict reliably the intra-amniotic concentrations of these markers. However, in patients with intact membranes, cervical MMP-8 concentration could reflect the magnitude of amniotic MMP-8, thus selecting patients who could benefit from aminocentesis for additional information.

P44-1356
COMPARISON BETWEEN ORAL ESTROGEN ONLY AND COMBINATION WITH ESTROGEN DEPOSITION USTJECTION IN 80 FROZEN-THAWED EMBRYO TRANSFER

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Problem statement: The aim of this study was to compare two methods of endometrial preparation for frozen-thawed embryo transfer (FET), oral estradiol valerate tablets only and combination with estradiol valerate depot injection.

Methods: This retrospective study included a total of 213 FET cycles that used estrogen-progestrone supplement as an artificial endometrial preparation method, between Nov 2015 and Jul 2017 at Maria Fertility Hospital. Oral estradiol valerate tablets (OEV) only group (EV-O) included 104 cycles that received continuous OEV from day 3 onwards up to the day of progesterone supplement, while combination estradiol valerate depot (EVD) injection group (EV-D) included 109 cycles who had EVD treatment added to OEV from day 3 onwards up to the day of embryo transfer. Statistical analysis was performed using the SPSS software. Variables were compared using t-test for normally distributed data and Mann-Whitney U-test for non-normally distributed data. A p-value of <0.05 was considered statistically significant.

Results: There were no statistical differences between the two groups in terms of age, BMI, FSH, LH, P level, the number of retrieved oocytes, ET day, and the number of cycles with successful pregnancy. However, there were significant differences between the two groups in terms of the number of embryo transfers (ET) per cycle and the number of pregnant cycles per ET (1.56 vs. 1.79, p=0.006). No significant difference was found in the baseline characteristics between the two groups. The number of cycles with successful pregnancy was found to be significantly higher in the EV-D group (74.2%) than in the EV-O group (65.3%), with a statistical difference determined by the chi-square test (p=0.002). In addition, the number of cycles with clinical pregnancy was also higher in the EV-D group (47.7%) than in the EV-O group (33.9%), and the statistical difference was determined by the chi-square test (p=0.038). Therefore, the results of this study suggest that combination estradiol valerate depot injection may improve the endometrial preparation for frozen-thawed embryo transfer cycles.

P45-1193
A CASE OF IDIOPATHIC ACUTE HEPATITIS WITH COMPLICATIONS IN MID-TRIMESTER PREGNANCY

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Problem statement: Liver diseases in pregnancy although rare but they can seriously affect mother and fetus. It is difficult to identify features of liver disease in pregnant women because of physiological changes. Physiologic changes of pregnancy can be confounding with the symptoms of liver diseases. It can not only complicate mother’s life but also burden of life of fetus. Methods: We present a case of idiopathic acute hepatitis with complications in mid-trimester pregnancy. Results: A 32-year-old multiparous pregnant woman (gravida 2, para 1) at 16 weeks gestation presented with high fever, upper abdominal pain and tachycardia. In pelvic examination, poor odor of vaginal discharge was noted and the cervix was 1 centimeter dilated and 50 percent effaced. Laboratory results showed impaired liver function tests, high levels of C-reactive protein positive DIC profiles. Cultures for Ureaplasma urealyticum and Mycoplasma hominis in vaginal discharge were positive. Under diagnosis of clinical chorioamnionitis with secondary progression of DIC, she underwent termination of pregnancy and after that, computed tomography was performed. The results of the computed tomography showed hepaticopathy with a secondary change of gallbladder, splenomegaly and pleural effusion in both lungs (Figure 1.). The laboratory tests for acute viral hepatitis A, B, C, D, and E were negative. The case was considered to be an acute viral hepatitis. She was treated with symptomatic therapy and conservative treatment. Conclusion: We present a case of idiopathic acute hepatitis with complications in mid-trimester pregnancy.

P43-1293
ROBSCON CLASSIFICATION OF CAESAREAN SECTION CASES IN ARMADALE HEALTH SERVICE, WESTERN AUSTRALIA IN ONE-YEAR PERIOD

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Aim: The aim of this audit is to conduct analysis of Caesarean Section (CS) cases using Robson Classification. By identifying the groups of women with highest CS rate, effective measures can be proposed and implemented to reduce it. Materials and method: All deliveries in obstetrician department of Armadale health service, Western Australia, from July 2015 to June 2016 have been included. Robson classification had been applied to all caesarean section deliveries using departmental records. Robson Ten-Group Classification is a system that classifies women into 10 groups based on their obstetrics characteristics (parity, previous CS, gestational age, onset of labour, foetal presentation and the number of foetuses). Results: From total 2493 deliveries, 523 were with Caesarean section (21.2%). The annual caesarean section rate was 20.97%. About forty percent (213 cases) were patients with single cephalic pregnancy and history of caesarean section (group 5). Induced nulliparous single cephalic was the second largest group with 77 cases (14.72%) and nulliparous cases went through spontaneous labour but ended up with CS were in the third place (13.57%). Among the patients, we divided caesarean section cases into ten groups. Overall CS rate in Armadale health service is approximately ten percent below the national rate (32%). Our results showed that patients with previous caesarean section (group 1) and group 7 were at risk. It is important to closely monitor and avoid unnecessary CS in low risk patients specially in nulliparous mothers as it can increase their chance to have CS in further pregnancies. In addition, vaginal birth after caesarean (VBAC) should be encouraged in all multipara patients.
liver disorders was low. And she had chorioamnionitis with DIC so sepsis was suspected. In consideration of her general condition, we decided termination of pregnancy and after that, she was managed about acute hepatitis. We report an uncommon case of acute hepatitis of unknown causes with DIC and clinical chorioamnionitis coincidentally in mid-trimester pregnancy.

Figure captions: The images of computed tomography. (A) Hepatopathy with (B) secondary change in gallbladder and (C) splenomegaly

P46-1197
A CASE OF OVARIAN TORSION OF MIXED EPITHELIAL TUMOR MISDIAGNOSED AS A MALIGNANCY IN POSTMENOPAUSAL WOMAN

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Problem statement: Adnexal torsion is often diagnosed in reproductive age but rare in postmenopausal women at approximately 2.7%. So, most cases of adnexal torsion with postmenopausal women are diagnosed as a malignancy preoperatively. The recent case is presented that ovarian torsion with mixed epithelial tumor misdiagnosed as a malignancy in postmenopausal woman.

Methods: We present a case of ovarian torsion of mixed epithelial tumor misdiagnosed as a malignancy in postmenopausal woman. Results: A patient aged 65 years presented with lower abdominal pain which started 3 days ago. Ultrasound showed a multiseptated cystic mass with a solid portion in the left ovary. So, malignancy was suspected but serum CA-125 revealed normal levels. The patient underwent exploratory laparotomy. A white-gray cystic tumor was detected in the left adnexe, having a torsion of 720° in a counterclockwise direction. First, the left salpingo-oophorectomy was performed and the result of a frozen section biopsy confirmed a borderline Brenner tumor associated with a mucinous tumor. Subsequently, total hysterectomy and right salpingo-oophorectomy were performed. The specimen revealed that the cyst wall was lined by a single layer of benign mucinous cells, which was consistent with mucinous cystadenoma. The solid area displayed around to oval tumor cell nests within fibrous stroma, obvious nucleoli and longitudinal grooving with no cytologic atypia, of which features were benign Brenner tumor (Figure). Conclusion: Adnexal torsion in postmenopausal women is difficult to diagnose preoperatively because the clinical symptoms of it is constant and dull in postmenopausal women. Furthermore, the risk of malignancy increases with age in epithelial ovarian tumors. The patient of this case shows a large, multicystic ovarian mass containing a solid portion in radiologic assessment. Because mucinous tumors are usually large, manifest as multiloculated lesions and Brenner tumors appear as a solid mass, discrimination between benign and malignancy is difficult with sonographic findings alone. Due to these reasons, surgery is performed based on condition severity in preparation for malignant tumor treatment instead of torsion. But it should be taken into consideration that the possibility of malignancy is low in postmenopausal women with normal CA125 levels and although very rare, ovarian torsion can occur in postmenopausal women, this consideration makes us carry out appropriate surgery based on the result of frozen section biopsy to exclude the possibility of malignancy. It is important that although malignant ovarian tumor is suspected preoperatively in postmenopausal women, surgeons can avoid unnecessary surgical procedures by considering the possibility of benign when there is intraoperative finding of ovarian torsion. Figure. (A) The tumor consisted of solid (left side) and cystic (right side) areas. (H&E, x40) (B) Cystic spaces were covered with single layered mucinous cells. (H&E, x400) (C) Solid areas showed dense fibrous stroma and round to oval shaped epithelial cell nests. (H&E, x100) (D) Tumor cell nests in solid areas showed abundant eosinophilic cytoplasm with a single prominent nuclei and frequent nuclear groove. (H&E, x400)

P47-1418
INTRAVENOUS APPLICATION OF HELIXOR® IN GYNECOLOGICAL ONCOLOGY GROUP IN KOREA: IS IT SAFE?

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Traditional mistletoe (Viscum album L.) therapy has been frequently used in patients with cancer in Europe. The different mistletoe formulations available for oncological use are Iscador®, Iscucin®, AbnobaViscum®, and Lektinol®, as well as Helixor®, which may improve therapeutic outcomes following intravenous (i.v.) administration and therefore, is becoming more commonly used. We conducted an observational study in four different University Hospital Centers and the frequency of adverse drug reactions (ADRs) induced by the i.v. infusion of Helixor® was determined. Of the 108 patients with gynecological cancer who received i.v. infusions of Helixor®, 10 (9.3%) reported mild ADRs, and no serious ADRs were reported. Therefore, i.v. infusion of Helixor® was determined to be safe, and prospective efficacy studies are recommended.

P48-1104
PREDICTION OF TERM DELIVERY AFTER CERVICAL CERCLAGE ACCORDING TO CERVIX LENGTH IN WOMEN AT HIGH RISK OF PRETERM BIRTH

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Problem statement: To predict cervical length for term delivery after cerclage in women at high risk of preterm birth. Methods: Ninety-seven women at high risk of preterm birth who underwent McDonald cerclage and were delivered by a single surgeon between January 2003 and June 2012 were included. They were grouped based on cervical length (CL) by ultrasonography, where 2.5 cm is usually defined as short cervical length. We compared clinical characteristics per the diagnosed short cervical length (≤2.5cm vs. >2.5cm) and predicted the optimal cervical length for term delivery after cerclage. Results: Postoperative CL differed (2.8cm vs. 3.3cm, p=0.002) by the pre-surgical grouping based on cervical length (n=40, n=57), while gestational age at delivery did not differ significantly. If the postoperative CL was secured at 3.1cm, two thirds of patients (sensitivity 64%, specificity 65%) maintained pregnancy till 37 weeks. After adjusting for confounding factors, we showed that postoperative CL longer than 3.1cm resulted in an average gestation of 37 weeks or later (OR=2.6, 95% CI 1.2-6.0). Conclusion: Postoperative CL over 3.1 cm predicts term delivery after 37 weeks.

Table 1. Cervical characteristics

<table>
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<th>Characteristic</th>
<th>n=40</th>
<th>n=57</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td>11.2±4.3</td>
<td>17.8±3.3</td>
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<tr>
<td>Previous spontaneous preterm delivery</td>
<td>17.3±17.1</td>
<td>22.3±17.3</td>
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<tr>
<td>Gestational age at cerclage (week)</td>
<td>11.4±3.1</td>
<td>14.6±5.1</td>
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<tr>
<td>Gestational age at delivery (weeks)</td>
<td>34.5±2.4</td>
<td>35.5±7.1</td>
</tr>
<tr>
<td>Term delivery (37 weeks)</td>
<td>155.7±6.0</td>
<td>155.7±6.0</td>
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<tr>
<td>Cervical length before cerclage (cm)</td>
<td>27±6.0</td>
<td>31±6.0</td>
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<tr>
<td>Cervical length after cerclage (cm)</td>
<td>31±6.0</td>
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<tr>
<td>Indicators</td>
<td>15.0±7.5</td>
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</tbody>
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than 2 days of brownish discharge after the end of the menstrual
prevalence was 64.5%, with 22% categorized as large (defined as
niche at the uterine scar site, prospective studies on this problem in
several reports of an association between abnormal bleeding and a
in terms of abnormal uterine bleeding. Although there have been
P50-1315
COMPARATIVE EFFECTIVENESS OF CORRECTION OF CERVICAL INCOMPETENCE THROUGH CERCLAGE AND OBSTETRIC PESSARY
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Problem statement: Preterm birth is a global problem of obstetrics and perinatology. Complications resulting from premature births are the main cause of death of children under five years of age (Information Note of the WHO, 2016). The consequences of cervical incompetence (CI) are up to 40% of prematurely completed gestations. Objective of the study: improvement of the outcome of pregnancy and childbirth in the patients with CI. Methods: the study was performed in 2012-2015 in the clinical bases of PFUR. Pregnant women with CI were examined and treated at 18-22 week (n=221). The CI criterion was a vaginal ultrasound data: cervix lengh (CL) ≤ 25 mm. The patients were randomized to groups: I – cerclage (corollar, multi-factor, variance analysis, logistic regression analysis) and the Mann-Whitney test (U-Test) as the nonparametric method. The methods of variance statistics (correlate, multi-factor, variance analysis, logistic regression analysis) and the probability relationship calculation were used. The differences were statistically credible at p<0.05. Results: The analysis of the gestation course showed that the main complication of the gestation after the correction was an imminent abortion (0.002). This complication was determined in 194 (87.8%) patients, in the cerclage group - 94.3%, in the pessary group – 81.5% (p<0.05). In I group one pregnant woman had 2.2±0.6 hospital admissions, while in II - 1.3±0.8, i.e. after correction with the pessary, the women were hospitalized 1.7 times less frequently (p<0.05). In general, the effectiveness of the CIC correction was 90.5%, in I – 91.6%, in II – 89.5%. We determined the dependence of efficacy of the methods on pH of the vaginal medium, Cl and history of preterm birth. If pH of the vagina was 4.0-5.3, the efficiency of the pessaries was 92.1%, cerclage - 94.8%, if pH>5.3, the efficiency of the cerclage was reduced to 72.3%, but it remained high enough in the pessary group (85.2%). At CL15 mm, the cerclage proved to be more efficient (86.4%, 73.8% respectively) (p<0.05). In the patients with preterm births in past medical history, the correction of the CI was ineffective in I group - 3.4 times more frequently, in II – 3.0 (p<0.05). In the analysis of the births, it was found that 85.0% of the patients with CI, who had been cerclaged, and 77.1% of the patients with CI who had been put the pessary, delivered in due time. The premature births were in 13.1% and 16.7% respectively. Spontaneous miscarriages occurred more frequently in the II group (5.3% vs. 1.9%). Conclusions: The choice of the CI correction method on an individual basis depending on the cervical length, the pH of the
P49-1436
PREVALENCE OF ABNORMAL UTERINE BLEEDING FOLLOWING CESAREAN SECTION BY DOUBLE-LAYER INTERRUPTED CLOSURE OF HYSTEROTOMY
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Problem Statement: Recent studies have indicated that surgical techniques used for closure of hysterotomy incision may affect uterine scar healing and have long-term consequences, specifically in terms of abnormal uterine bleeding. Although there have been several reports of an association between abnormal bleeding and a niche at the uterine scar site, prospective studies on this problem in a random population are scarce. Voet et al. reported that niche prevalence was 64.5%, with 22% categorized as large (defined as a residual myometrium thickness of 50% of that of the adjacent myometrium). Additionally, postmenstrual spotting, defined as more than 2 days of brownish discharge after the end of the menstrual period, is more prevalent in patients with large niches than in patients with smaller niches. In the aforementioned study, uterine closure was mostly performed using the single-layer technique. We previously reported that the incidence of large niche formation was significantly lower with double-layer closure than with single-layer closure, although double-layer closure did not decrease the overall incidence of niche formation. Therefore, we expect the prevalence of postmenstrual spotting to be lower in double-layer closures than in single-layer closures. We aimed to study the relationship between niche and postmenstrual spotting, and its prevalence, after cesarean section (CS) of a double-layer closure of hysterotomy. Methods: A prospective cohort study of women undergoing CS with a transverse lower uterine segment incision was performed. The site of the cesarean scar was evaluated 6 months after CS with saline contrast sonohysterography. The niche depth and residual myometrium was measured and the ratio of the niche depth to the sum of the niche depth and residual myometrium thickness (niche ratio) was calculated. Bleding pattern was assessed in 12 months after CS. Results: Fifty-four women were included. Niches were identified in 28/54 (51.9%) women. A large niche (niche ratio 0.5) was observed in only one case (1.9%). The prevalence of postmenstrual spotting at 12 months after CS was 4/54 (7.4%). Conclusion: In our study, the prevalence of large niche and postmenstrual spotting after CS with double-layer closure was lower than that with single-layer closure previously reported. Double-layer closure may be associated with a lesser frequency of large uterine niches and postmenstrual spotting after CS.
vagina, the presence of premature births in a past medical history will allow prolonging the pregnancy with CI, reducing the number of premature births.

PS1-1389
EPIGENETICS AND FIBROIDS
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Despite the large number of works devoted to the study of the pathogenesis of uterine fibroids, so far most of the mechanisms underlying the initiation and progression of the disease remain unknown. The purpose of this study was to investigate the pathogenetic importance of DNA methylation in the development and prognosis of fibroids, as well as in the study of peculiarities of DNA methylation gene of estrogen receptor ESR1α, gene of progesterone receptor PgR-B and gene of WNT-inhibitory factor 1 (WIF1) for fibroids comparing with the normal tissue of the myometrium. In a prospective study, the samples were obtained during the conservative myomectomy or hysterectomy in 30 patients aged 35 to 52 years (mean age 43 years). The control group included samples of biopsies of normal myometrium taken from the same patients. Dimensions leiomyomas ranged from 2 cm to 16 cm (mean 6.7 cm). All persons involved in the study gave written informed consent to participate in it. Isolation of DNA: The received tissue samples were divided into pieces to 2 g, which are then lysed in order to isolate and transfer the DNA unmethylated cytosine residues to thymine while maintaining unchanged methylated cytosine residues (bisulfite conversion). Then PCR have been performed. Sequencing was carried out in the center of collective use "Gene" at the on Institute of Molecular Biology of V.A. Engelhardt RAS based on standard protocol using forward primers and kit reagents ABI PRISM® BigDye™ Terminator v. 3.1. In the analysis of DNA methylation biopsies myoma node in 3 patients out of 30 showed methylation of the estrogen receptor gene ESR1α, at 27 - the absence of methylation of the estrogen receptor gene ESR1α (10% vs 90%, p = 0.0273). In the control group (biopsies of healthy myometrium) in 100% of patients showed no methylation ESR1α receptor gene, p = 0.0038. Also, the analysis of DNA methylation biopsies myoma node in 2 patients of the 30-identified gene methylation PgR-B progesterone receptor, in 28 - the absence of methylation of the gene progesterone receptor PgR-B (6.67% vs 93.33%, p = 0.03253). In the control group (biopsies of healthy myometrium) in 100% of patients showed no methylation PgR-B receptor gene. In the biopsies myoma node identified gene methylation WIF1 factor in 8 biopsy specimens - the lack of methylation WIF1 factor gene (73.33% vs 26.67%, p = 0.032). In the control group (healthy myometrium) in all patients showed no methylation WIF1 factor gene (100%, p = 0.0034). Methylation at least of one site in the promoter region of the estrogen receptor gene ESR1α was detected only in three myoma node biopsies. The overall level of methylation was 2.5%. The findings suggest that low levels of methylation of the promoter region of the estrogen receptor gene ESR1α uterine fibroids, which may be a consequence of hypomethylation of the promoter of this gene and its normal state. Methylation of at least one site in the promoter region of the progesterone receptor PR-B gene was detected in only two biopsies. The overall level of methylation was 2.5%. The findings suggest that low levels of methylation of promoter PR-B progesterone receptor gene region with uterine fibroids, which may be a consequence of hypomethylation of the promoter of this gene and its normal state. The methylation of at least one site in the promoter region WIF1 factor gene was found in 22 patients with uterine myoma. There are clear differences of methylation status of the gene in normal tissue where the gene is not methylated and, consequently, its expression is suppressed. According to the results of our study, the vast majority of tissue samples myoma node noted from 5 to 11 sites of methylation of the promoter region of the gene WIF1. WIF1 methylated gene epigenetically silent, ie, it is not expressed, and therefore incapable of encoding functionally active protein WIF1-inhibitor WNT-canonical signaling cascade. Because of WNT-signaling pathway becomes active and thus forming a mechanism triggered myoma tumors. We believe that the findings can be considered yet another step towards understanding the formation of abnormal cellular and subcellular mechanisms of the pathogenesis of uterine fibroids.

PS2-1070
USE OF SURGICAL DRAINS IN GYNAECOLOGY SURGERY REVISITED
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We present two cases of unanticipated post-operative haemorrhage in which routine use of surgical drains have saved the day. Case Scenario 1: A 43-year-old healthy patient underwent uncomplicated total abdominal hysterectomy for large uterine fibroids. A Jackson-Pratt surgical drain was inserted. The next day, there was a sudden increase in drain output consisting of frank blood. Her haemoglobin dropped to 6g/dL. During re-laparotomy, the drain was seen to be kinking the infundibulopelvic ligament, and this was arrested by diathermy. Case Scenario 2: A 52-year-old patient underwent myomectomy for a large solitary fibroid. Within eight hours after wound closure, the patient had lost 500 millilitres of blood and detected through a Jackson-Pratt drain. At re-laparotomy, we sutured and stopped a small arterial bleeding vessel at the bladder base. Discussion and Conclusion: It is said, ‘Nobody has regretted putting in a drain but many have regretted not putting one in after surgery’. The art of surgery aims for minimal blood loss during operation and zero loss after that. This involves a degree of faith in both surgical skills and patients' haemostatic mechanisms. By the time haemodynamic deterioration occurs, significant morbidity might have set in. A surgical drain poses hardly any increase in surgical time or infection that delays patients' discharge. We conclude that routine use of surgical drain can reduce morbidity from unanticipated post-operative haemorrhage.

PS3-1218
SUBMUCOSAL UTERINE MYOMA REGRESSION AFTER HIFU TREATMENT
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Purpose: Submucosal uterine myoma can cause menorrhagia, dysmenorrhea and life-threatening severe anemia. Recently, HIFU is regarded as a safe and effective treatment option for uterine myoma and adenomyosis. The objective of this article is to review about a patient with submucosal uterine myoma regression after HIFU treatment at St. Peter’s Hospital, Seoul, Republic of Korea.

Methods: A 48-year-old woman who has two maternity experiences came with chief complaint of excessive menstrual bleeding with clots and prolonged monthly periods. The patient's medical history revealed menorrhagia and severe anemia (Hemoglobin 6 g/dl) with blood transfusion. On examination, the abdomen was soft and non- tender. Investigation included: RBC Count 3.40 x 103 μl, Hematocrit 32.2 % and Hemoglobin 10.9 g/dl. MRI showed a submucosal myoma (5 cm × 3 Cm × 3 Cm, FIGO type 1). Under IV anesthesia, the patient was given PRO HIFU (US-guided HIFU, Shenzhen, China) treatment. Acoustic power of 300 W/cm2 were delivered with 0.1 second interval at the target point. This process was repeated on a point by point basis. After one slice was treated, the target was shifted 2 mm laterally. Results: Immediately after HIFU treatment, MRI was done. MRI revealed submucosal myoma was completely ablated. Next day the patient was discharged with no other problem. After 3 months from HIFU treatment, the patient visited our hospital. Except of vaginal discharge, patient felt good with no more menorrhagia. On MRI examination, there was no submucosal myoma with normal appearance of uterus. Investigation included: RBC Count 4.27x 103 μl, Hematocrit 37.7 % and Hemoglobin 12.7 g/dl. Additionally, from January 2016 to August 2017, 784 patients among which 322 suffered from uterine fibroid and 452 suffered from adenomyosis, were treated as inpatients by PRO HIFU (US-guided HIFU) treatment at our hospital.
Conclusion: Ultrasound-guided HIFU treatment can be a safe, effective and non-invasive alternative in treatment of submucosal myoma.

P54-1220 PERINATAL EXPOSURE TO DEETHYLHEXYL PHTHALATE INDUCED POLYCYSTIC OVARIAN SYNDROME-LIKE CHANGES IN F1 OFFSPRING MICE

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Purpose: Polycystic ovarian syndrome (PCOS) is the most common endocrinopathy in fertile women, and affects approximately 5–15% of reproductive age women. We demonstrated that exposure of mice to DEHP via the parenteral route resulted in altered gene expression in siblings and induced pathophysiologic changes like those observed in PCOS women. Methods: Adult female CD-1 [ICR] BR mice were obtained and bred with male mice of the same strain at the breeding facility. Three pregnant mice were injected subcutaneously with corn oil (control group, n = 1) or DEHP (Sigma-Aldrich, Inc., St. Louis, MO) dissolved in corn oil during pregnancy (gestation days 9–16) and lactation (postpartum days 7–21). Both ovaries were removed from F1 female mice per group (control group, n = 5; low dose group, n = 6; high dose group, n = 8), and RNA was extracted from three ovaries of different mice in each group using TRIzol Reagent® (OH, USA) per the manufacturer’s instructions. Real-time quantitative PCR was performed in triplicates in 384-384-good plates. Results: The microarray analysis indicated that 529 genes were significantly dysregulated after low-dose perinatal exposure, while 617 genes showed significant changes after high-dose perinatal exposure to DEHP. Ninety-five genes were commonly upregulated, and an additional 95 genes were downregulated in both treatment groups. The RT-PCR data corroborated the results of the microarray analysis. The mean body weight of the control group (34.7 ± 1.47 g, n = 5) was significantly lower (paired t-test, P 0.05) than those of the low-dose (41.92 ± 4.73 g, n = 6) and high-dose treatment groups (42.8 ± 2.26 g, n = 8). The amount of visceral fat was significantly lower in the control group (1046.0 ± 318.8 mm³) than in the treatment groups (low-dose group, 2442.5 ± 583.3 mm³; high-dose group, 2496.05 ± 987.5 mm³). The percentage of ovarian area exhibiting hyperthecosis area was higher in the low-dose treatment group (66.65%), calculated using the equation, hyperthecosis area/total area × 100) than in the other groups (40.81% in the control group, 50.47% in the high-dose treatment group).

Conclusion: Our results suggest DEHP, and not only its metabolites, is toxic enough to affect follicular development. Altogether, these results suggest that perinatal exposure to endocrine-disrupting chemicals might be a candidate factor for the emergence of PCOS in adulthood.

P55-1179 HOW DO YOU DISTINGUISH THE MALIGNANT CHANGE OF MATURE CYSTIC TERATOMA AND IMMATURE TERATOMA OF OVARY?

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Purpose: To investigate the impact of TAA on fertilization rate and embryo transfer outcomes after embryo implantation. The aim of this study was to show the impact of TAA on in vitro fertilization and embryo transfer (IVF-ET) cycles is related to fertility problems and there have been researches that analyzed the women who underwent their first-time IVF-ET cycles from January 2015 to December 2016. The patients who had the infertility cause of male factor and abnormal findings of semen analysis on the fertilization day were excluded. A total 487 patients
were included and 34 patients had positive results of TAA, whereas 453 patients had negative results of TAA. Results: Mean age, AMH, TSH, fT4 levels and the duration of infertility of both groups were similar. There were no significant differences between the groups in terms of total number of retrieved oocytes, the number of metaphase II and metaphase I oocytes, the rate of intraovarian sperm injection (ICSI). Statistically, differences of total fertilization rate (68.9% vs. 69.8%, p=0.760), fertilization rate with ICSI (84.2% vs. 79.2%, p=0.244), fertilization rate of conventional IVF (62.1% vs. 65.8%, p=0.276) and the ratio of good quality embryos (13.6% vs. 14.4%, p=0.760) were not found. Conclusions: There was no significant difference in the outcomes of fertilization following IVF-ET in the patients with TAA when compared with those negative for TAA. Thyroid autoantibody status did not affect fertilization outcomes in women with their first-time in Vitro Fertilization in this study.

P57-1077
CLINICAL FEATURES OF ENDOMETRIOSIS IN ABDOMINAL WALL
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Introduction: Endometriosis is defined as the presence of functioning endometrial tissue outside the uterine cavity. Scar endometriosis is an uncommon but well-described condition. It is caused by the dissemination of endometrial tissue into the wound at the time of surgery. Scar endometriosis can occur after prior abdominal surgery or interventions such as hysterotomy, salpingostomy, episiotomy, cesarean section (C-section), appendectomy, amniocentesis and laparoscopy. The deposits can involve uterine scar, abdominal musculature or subcutaneous tissue with the latter being the most common site of extragenital endometriosis. Estimated incidence after caesarean delivery is 0.03-0.4% and may reach up to 1.08% after hysterotomy. The endometrial implant may be cystic, solid or mixed. It usually presents as a palpable mass at the scar site with or without cyclical pain.

Objective & method: We have collected and documented a case series of 12 patients who underwent surgical management for CSE in our obstetrics and gynecology clinic at Jeju National University Hospital between January 2006 and December 2015. All patients were informed about surgical management and written informed consents were obtained. All patients had a history of previous cesarean section, and their initial cesarean sections were performed in different hospitals. After the clinical assessment, the diagnosis was confirmed by pelvic ultrasoundography. Results: This study includes the medical records of 12 patients who underwent surgical management for CSE in all patients. The median age was 30.6 years (range from 24 to 39 years), and the mean BMI was 28. The common complaint of the patients was a palpable subcutaneous mass under the incision scar. Seven patients suffered from cyclical pain. Noncyclic pain was seen in three patients, and four patients had experienced the enlargement of the nodule during the menstrual period. The median interval between cesarean section and the onset of symptoms was 45 months (range of 16 to 108 months). The preoperative diagnosis was confirmed in all patients. Two patients (17%) had a history of surgical intervention. The two patients with a history of medical treatment failure. All the patients were treated surgically. Almost all the nodules were excised or biopsied. Conclusions: A surgical scar becoming painful and swollen during menstruation is the classic symptom of scar endometriosis. Causes include iatrogenic transplantation of endometrium to the surgical wound. Surgical excision is the main treatment.

P58-1489
PREVALENCE, CHARACTERISTICS, COMPLICATIONS, AND PERINATAL OUTCOMES OF NON-SEVERE VERSUS SEVERE FEATURE PREECLAMPSIA AND HELLP
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Problem statement: Hypertension in pregnancy is the common complications during pregnancy, and also a leading cause of maternal morbidity and mortality such as cardiovascular and cerebrovascular diseases, liver disease, placental abruption, disseminated intravascular coagulation and HELLP syndrome. The worldwide prevalence of hypertension in pregnancy is approximately 2 to 10% which vary according to the difference of the population characteristics, definitions, and criteria of diagnosis. In Thailand, the prevalence of preeclampsia was 1.9% and Sirirajind Hospital reported 0.96% severe preeclampsia. The primary objective of this study was to determine the prevalence of preeclampsia (PE) among pregnant women and to evaluate the maternal complications and perinatal outcomes between non-severe versus severe feature PE and HELLP.

Methods: A retrospective descriptive study was conducted at Srinagarind Hospital, Chiang Mai University, Thailand. A total of 213 pregnant women diagnosed PE according to ACOG definition from January to December 2016 who delivered at Srinagarind Hospital were enrolled. The prevalence of PE was determined in perinatal outcomes of characteristics were compared between non-severe versus severe feature PE with HELLP groups using Chi-square test and Student t-test. Results: From a total of 11,199 deliveries during the period of study, 213 preeclamptic women were identified (overall prevalence of PE was 1.9 per 1000 deliveries); 107 women (50.2%, 0.96 per 1000 deliveries) were diagnosed non-severe feature PE, 90 women (42.3%, 0.9 per 1000 deliveries) were diagnosed severe feature PE and 16 women (7.5%, 0.01 per 1000 deliveries) were diagnosed HELLP syndrome. Fifty-eight women (27.2%) were diagnosed at gestational age before 34 weeks; early-onset PE, and no-conceived women (45.5%) delivered at gestational age before 37 weeks. Twenty-one women (9.9%) had postpartum hemorrhage, 11 women (10.3%) among non-severe feature PE and 10 women (9.4%) in severe feature PE. Placental abruption (3 women; 1.4%) and heart failure (1 woman; 0.4%) were affected with non-severe feature PE group. Low birth weight (35.1% versus 13.7%, p=0.001), asphyxia (1.4% versus 0.0%, p=0.001) and neonatal resuscitation (15.8% versus 42.7%, p=0.001). Stillbirth (3 women; 1.4%) and death of the newborns (3 women; 1.4%) and intrapartum death was more among severe feature PE group but without statistical significance (2.6% versus 6.4%, p=0.190).

Conclusion: The prevalence of preeclampsia was not difference between non-severe and severe feature PE with HELLP was associated with higher rates of maternal severe morbidity and perinatal outcomes.

P59-1259
THE RISK OF RECURRENT CAESAREAN SECTION FOR LABOUR DYSTOIA IN WOMEN UNDERGOING TRIAL OF LABOUR
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Problem statement: The rates of caesarean section (CS) are increasing worldwide. CS leads to an increased risk for maternal and neonatal complications in the subsequent pregnancy and labour. Previous studies suggest that the mode of delivery with the least maternal morbidity for a woman with a history of previous CS is a successful trial of labour (TOL). The risks of unsuccessful TOL are higher than the risks of scheduled repeat CS. However, prediction of successful TOL is difficult. Data on TOL, including induction of labour (IOL), in women with a history of previous CS for failed induction or labour dystocia in the first or the second stage of labour is limited. In this study, our primary aim was to evaluate the risks of IOL including IOL, in women with a history of previous CS for labour dystocia. We also wanted to assess pre-labour risk factors for repeat CS for labour dystocia. This retrospective study included 660 women with a previous lower segment transverse CS for labour dystocia undergoing IOL or spontaneous onset of labour. Labour induction was carried out by amniotomy, oxytocin, and in case of an unfavourable cervix (Bishop score 6), a single 50 ml Foley catheter or misoprostol were first used for cervical ripening. The primary outcomes were rates of vaginal delivery and repeat CS for dystocia. The secondary outcomes were uterine rupture, postpartum haemorrhage ≥ 1000 ml, maternal intrapartum and postpartum infections, placental retention, and neonatal primary outcomes (pH 7.05, 5-minute Apgar score 7, and BE <-12). Results: A total of 226 (34.2 %) women underwent IOL and 434 (65.8 %) women had spontaneous onset of labour. The rate of vaginal delivery was 72.9 % and the rate of repeat CS was 84.5 % (p = 0.001), birth rate, failure cases (0.6 %) of uterine rupture occurred. The rate of maternal intrapartum infection was 2.9 % and postpartum infection 2.4 %. Post-partum haemorrhage ≥ 1000 ml occurred in 126 (19.1 %) women. Seventeen (2.6 %) neonates had an umbilical cord artery pH 7.05 at birth, and 26 (3.9 %) had a 5-minute Apgar score 7. The women with no prior vaginal delivery had higher rates of CS (94.1 %; OR 5.7 [95 % CI 1.9-17.5]; p=0.001) than the women with prior vaginal delivery. The women undergoing IOL more often had CS (36.7 % vs. 22.1 %; OR 2.0 [95 % CI 1.4-2.9; p=0.001]) compared to the women with spontaneous onset of labour. The rates of repeat CS for dystocia were higher in women with no prior vaginal delivery compared to women with a prior vaginal delivery (21.2 % vs. 5.0 %, OR 5.1 [95 % CI 5.3-11.3]; p=0.001), and IOL compared to women with spontaneous onset of labour (23.9 % vs. 12.1 %; p=0.003).
14.5 %; OR 1.8 [95 % CI 1.3-2.8]; p=0.003). The risk factors associated with a repeat CS for labour dystocia were no prior vaginal delivery (OR 2,9 [95 % CI 2.5-19.6]; p=0.01) and a birth weight of 4000 g (OR 2.4 [1.5-3.8]; p=0.001).Conclusions: Our results suggest that TOL even with ICI seems a feasible option. To scheduled repeat CS for women with a history of previous CS for labour dystocia. However, in case of no prior vaginal delivery, maternal height less than 160 cm and an estimated fetal weight over 4000 g, scheduled repeat CS should be considered.

P60-1148 FOLLICULAR FLUID LEVELS OF ANTI-MİLLERIAN HORMONE, INSL3, IGF1 AND LEPTIN IN WOMEN WITH FERTILITY DISORDERS

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2Department of Medical Chemistry and Biochemistry, Faculty of Medicine in Pilsen, Pilsen, Czech Republic

Problem statement: Currently, 10-15% of couples at reproductive age suffer from infertility. A better understanding of the composition of the follicular fluid in which the developing oocyte occurs coupled with a better understanding of the regulatory processes of reproduction allows for the continuous improvement in the success of infertility treatment.

Methods: Anti-Müllerian hormone (AMH), insulin-like growth factor 1 (IGF1) and leptin are produced in the granulosa cells and play an important role in controlling the growth and maturation of follicles. Levels of biomarkers in the follicular fluid (FF) reflect the quality of the oocyte and its fertilization potential along with subsequent embryo development. Methods: 149 females were enrolled into our study. 73 healthy controls (median age of 26 years) and 76 females with fertility disorders (median age of 32 years) divided into four subgroups: anovulation, endometriosis, fallopian tube damage, and disorders with unknown etiology. The levels of biomarkers in the follicular fluid (FF) were measured in the granulosa cells and play an important role in controlling the growth and maturation of follicles. Levels of biomarkers in the follicular fluid (FF) reflect the quality of the oocyte and its fertilization potential along with subsequent embryo development.

Conclusions: AMH, IGF1 and leptin are produced in the granulosa cells and play an important role in controlling the growth and maturation of follicles. Levels of biomarkers in the follicular fluid (FF) reflect the quality of the oocyte and its fertilization potential along with subsequent embryo development.

P61-1482 PREDICTORS FOR FAILURE OF VAGINAL DELIVERY: A CASE-CONTROL STUDY

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Problem statement: Unexpected emergency cesarean section in women undergoing a trial of labor has a high risk of bladder injury, postpartum bleeding and fetal injury as well as the morbidity of cesarean delivery. This study was to identify potential predictive factors for failure of vaginal delivery in women undergoing a trial of labor.

Methods: Retrospective case-control study of singleton pregnancy between 36 and 42 07 weeks conducted from 2006 through 2015. A failure of vaginal delivery was defined as a delivery that was initially attempted a vaginal delivery but was converted to emergency cesarean section. As controls, we studied one successful vaginal delivery before the failed one. We used multivariable logistic regression to assess the risk for failure of vaginal delivery.

Results: Between 2006 and 2015, 1331 trials of vaginal delivery were performed of which 267 (20.0%) failed. Among these women, 238 cases were compared to the date of 244 women who underwent a successful vaginal delivery. Predictors for failure of vaginal delivery were related with maternal pre-pregnant body mass index (OR 1.02), maternal height (OR 0.94 per cm), initial cervical effacement (OR 0.98), initial cervical dilatation (OR 0.73), premature rupture of membrane (OR 0.54), station of descent of the fetal head (OR 0.61 per station more descended), estimated fetal weight ≥3500g as compared to 3500g (OR 2.4). Maternal age, gestational age, rupture of membrane, induction and use of epidural anesthesia were not useful for predicting failed vaginal delivery.

Conclusion: Failed vaginal delivery can be predicted using both ante- and intrapartum characteristics.

P62-1397 ULTRASOUND METHOD EVALUATION OF LOWER UTERINE SEGMENT IN PATIENTS WITH PREVIOUS UTERINE CAESAREAN SECTION

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Introduction: Caesarean section has reached high prevalence in population, becoming the most common surgical operation for women over the world. However, operation is associated with two important risk factors: the chance of uterus scar rupture during next pregnancy and mother's death. Vaginal delivery is one of the options how to reduce /smooth out increasing value of C-sections. The risk of uterine rupture in the presence of a lower segment C-section scar is related directly to the degree of thinning of the lower uterine segment. Transabdominal ultrasonography is the most common used method to measure myometrium, from which the decision in performing C-section is made. But it is still debatable if the measurements are precise between transabdominal and transvaginal ultrasonography and between women with or without scar on the uterus. No cut-off values have been developed and tested, underlining the need for more standardized measurement techniques and nomenclature.

Objectives: The aim of prospective cohort study was to compare and to find a correlation between the measurement of lower uterine segment thickness made with transabdominal ultrasonography method and lately manually made measurements in vivo during Caesarean section.

Methods: Research work was made in Pauls Stradiņš Clinical University Hospital (Riga, Latvia) and was approved by the local research and ethics committee. Informed consent was obtained from all women. During research 414 measurements of lower uterine segment thickness were made for 69 single fetus pregnant women in 38.97 ± 1.124 gestation week. Based on data from amnionesis, patients were divided into 3 groups:

A group- women without a scar on uterus (n=29),
B group- women with history of one performed C-section (n=29),
C group- women with history of performed two or more C-sections (n=11).

All patients underwent transabdominal ultrasound evaluation of the LUS by the same skilled sonographer. On the ultrasound, the lower uterine segment appears as a three- layered structure. We measured only the middle layer of myometrium- the muscular layer. During C-sections measurement were made manually before suturetion of uterus wall. Three measurements were taken during every method.
Results:

Table 1. Group characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>A group (N=29)</th>
<th>B group (N=54)</th>
<th>C group (N=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean ± SD</td>
<td>32.1 ± 4.1</td>
<td>33.7 ± 4.5</td>
<td>34.0 ± 3.1</td>
</tr>
<tr>
<td>Body-mass index, mean ± SD</td>
<td>27.6 ± 3.2</td>
<td>28.0 ± 3.4</td>
<td>28.2 ± 3.1</td>
</tr>
<tr>
<td>Height, mean ± SD</td>
<td>156.2 ± 4.2</td>
<td>160.3 ± 4.8</td>
<td>160.5 ± 3.3</td>
</tr>
<tr>
<td>BMI kg/m², mean ± SD</td>
<td>24 ± 4.6</td>
<td>24 ± 4.8</td>
<td>18 ± 3.5</td>
</tr>
<tr>
<td>Adiposity (BMI ≥ 25 kg/m², %)</td>
<td>34 ± 8.2</td>
<td>34 ± 8.3</td>
<td>18 ± 3.5</td>
</tr>
<tr>
<td>Immediate pre-delivery pregnancy (yes %)</td>
<td>70 ± 18</td>
<td>70 ± 18</td>
<td>70 ± 18</td>
</tr>
</tbody>
</table>

Surgical LUS grade correlation between measurements from ultrasonography and actual measures made in vivo.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>A group (N=29)</th>
<th>B group (N=54)</th>
<th>C group (N=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediction -BMI</td>
<td>30 ± 48.0</td>
<td>28 ± 48.0</td>
<td>33 ± 48.6</td>
</tr>
<tr>
<td></td>
<td>14 (44.8)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>9 (27.9)</td>
<td>12 (36.9)</td>
<td>3 (9.9)</td>
</tr>
<tr>
<td></td>
<td>1 (3.2)</td>
<td>1 (3.2)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1 (3.2)</td>
<td>1 (3.2)</td>
<td>1 (3.2)</td>
</tr>
<tr>
<td></td>
<td>1 (3.2)</td>
<td>1 (3.2)</td>
<td>1 (3.2)</td>
</tr>
</tbody>
</table>

Statistically reliable correlation between measurements from Usg and C-section were discovered only for group A patients (N=29) and in only one of three measurements - in a middle plane of myometrium (p=0.03). In both groups B and C, there was no statistically significant correlation between the sonographic mean LUS thickness and the surgical LUS grade.

Figure 1. Most common indications for Caesarean section (N=69)

Table 2. Lower uterine segment thickness measurement correlation between available measures from ultrasonography and actual measures made in vivo.

<table>
<thead>
<tr>
<th>Middle plane</th>
<th>Lateral right plane</th>
<th>Lateral left plane</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (N=29)</td>
<td>0.540</td>
<td>0.83</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>0.241</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>0.225</td>
</tr>
<tr>
<td>Adjustments</td>
<td>0.804</td>
<td>0.421</td>
</tr>
<tr>
<td>p value*</td>
<td>0.034</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Conclusion: Our finding indicates that ultrasound method in third trimester is only informative for pregnant women without any scar on uterus. Women who had not performed Caesarean section, had thicker myometrium than women who had performed Caesarean section. Women with a scar on uterus, should consider all possible complications based on measurements not only from ultrasonography, but also must evaluate BMI, interdelivery interval and patients age, when deciding whether to perform operation. We suggest that second trimester measurements for LUS is very important and can predict possible rupture of uterus wall in the third trimester.

Figure 3. Image represent mean score and interquartile range in uterine wall lateral –right– plane measurements what was made with ultrasound and during C-section.

* Mann-Whitney test p=0.001, ** Kruskal Wallis test p=0.001, Kruskal Wallis test p=0.780

Figure 4. Image represent mean score and interquartile range in uterine wall lateral left plane measurements what was made with ultrasound and during C-section. * Mann Whitney test p=0.022, Kruskal Wallis test p=0.036, ** Kruskal Wallis test p=0.445.

Analysing phenotypic indicators of patients, three statistically important correlations were discovered: the thickness of myometrium correlates with – 1) BMI A group p=0.097, B group p=0.024, C group p= 0.020, 2) shorter interval between pregnancies p=0.002, 3) patients age p=0.020-0.039. Next task was to compare thickness of myometrium between group A and B patients, the results are 10.00 [8.5;15] vs 7.00 [5.0;10.0]; p=0.003.

Conclusion: Our finding indicates that ultrasound method in third trimester is only informative for pregnant women without any scar on uterus. Women who had not performed Caesarean section, had thicker myometrium than women who had performed Caesarean section. Women with a scar on uterus, should consider all possible complications based on measurements not only from ultrasonography, but also must evaluate BMI, interdelivery interval and patients age, when deciding whether to perform operation. We suggest that second trimester measurements for LUS is very important and can predict possible rupture of uterus wall in the third trimester.

P63-1219 WHICH IS BETTER PREDICTION MARKER FOR LIVE BIRTH PREDICTION IN PATIENTS AGED OVER 40 WITH THEIR FIRST IVF TREATMENT?

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Problem statement: To evaluate clinical utility of antral follicle count (AFC) and anti-Müllerian hormone (AMH) in predicting in vitro fertilization (IVF) outcomes among the patients over 40 years old in their first IVF cycles. Methods: Total 219 patients aged 40 or older who underwent their first IVF with gonadotropin-releasing hormone antagonist protocol from January 2013 to September 2014 in CHA Gangnam fertility center were retrospectively analyzed. AFC and serum samples were measured prior to IVF treatment. The main outcomes were clinical pregnancy rate and live birth. Results: 36 out of 219 patients achieved clinical pregnancy (16.4%) and 27 out of 219 patients delivered (12.3%). The receiver operating characteristic curve analysis to predict clinical pregnancy showed that both age and AFC equally had higher accuracy by area under the curve (AUC=0.657, P=0.01) than serum AMH (AUC 0.613, P=0.03). The optimum cut-off value of age was ≤41 and that of AFC was 3 to predict clinical pregnancy. For the prediction of live birth, AFC had
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with live birth significantly (age, OR 0.41, P<0.01; AFC, OR 1.10, correlated with clinical pregnancy (age, odds ratio [OR] 0.53, P<0.01; 2Obstetrics-Gynecology, St. John Hospital, Bucur Maternity, and that of the number of total retrieved oocytes were 6. With multivariate regression analysis, age and AMH were significantly correlated with clinical pregnancy (age, odds ratio [OR] 0.674, P<0.01) and the number of total retrieved oocytes (AUC 0.620, P=0.02). The optimum cut-off value of age was ≤41, that of AFC was 3 and that of the number of total retrieved oocytes were 6. In patients aged over 40, AFC was shown to be a better biomarker than AMH for the prediction of live birth, AMH was positively correlated with clinical pregnancy but had no association with live birth. To predict the live birth, age ≤41, AFC ≤3 and total retrieved oocytes 6 appeared to be meaningful. This study demonstrated the significance of AFC as a predictor of live birth for old aged women at their first IVF cycle with gonadotropin-releasing hormone antagonist protocol.

Conclusion: In patients aged over 40, AFC was shown to be a better biomarker than AMH for the prediction of live birth, AMH was positively correlated with clinical pregnancy but had no association with live birth. To predict the live birth, age ≤41, AFC ≤3 and total retrieved oocytes 6 appeared to be meaningful. This study demonstrated the significance of AFC as a predictor of live birth for old aged women at their first IVF cycle with gonadotropin-releasing hormone antagonist protocol.

Evaluation of medical records regarding the births of the Bucur Maternity Hospital, the "St. John " , Bucharest during the years 2015-2016. We focused our attention in patients without prenatal care and associated behavior risk factors. Results: Our study included a total of 3,937 patients. We identified that 12.43% cases of pregnancies had inadequate prenatal care. The patients with inadequate prenatal care underwent vaginal delivery in 68.07% cases, cesarean section in 26.63% and 5.29% vaginal deliveries outside the hospital without medical assistance. We identified as the maternal risk factors: adolescent pregnancies, low body mass index (BMI), infectious diseases, behavioral risk factors such as smoking, addictive substances abuse or exposure to other toxic substances. We observed that 37% of those cases were low BMI (18 kg/m²) and 16.38% adolescent pregnancies. Smoking was revealed in 34.2% cases, whereas drug abuse in 0.5% cases. There were 0.05 cases that reported exposure to other substances (at work - in agriculture or factories). Conclusion: A significant number of women had inadequate environment and behavior prenatal care. Patients should be informed about the consequences of inadequate prenatal care and authorized official medical attitude is necessary.

P66-1560
UNCONVENTIONAL TREATMENT FOR INTRAEPITHELIAL CERVICAL NEOPLASIA -CASE REPORT AND LITERATURE REVIEW

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Introduction: Benefits of natural cytotoxic as extracts of Licorice for cancer treatment are reported by many studies. Licorice polyphenols induce apoptosis in cancer cells but their use for preneoplastic lesions is less investigate. Case report: We report the case of a 32 years old women nulligesta, HPV 16 positive and persistent LSIL. In may 2015 she underwent ERAD for persistent colposcopy lesion consistent for low grade dysplasia. The histological result was CIN1. HPV remained positive and repetitive colposcopy also remained positive for LSIL. The patient had no other risk factors (no smoking, one sexual partner) and was very anxious asking for a treatment that could resume the cervical lesion and avoid further implication on her obstetrical prognosis. We prescribed a combination of topical and oral treatment with Glycyrrhizic acid derived from Licorice root. Glycyrrhizic acid was reported to act as inhibitor of lipooxygenase and cyclooxygenase, protein kinase C, and downregulates the epidermal growth factor receptor. After 3 months of treatment we repeated colposcopy and colposcopy that were negative for intraepitelial or malignant lesion and only minor colposcopic changes associated with reparation. At one year HPV was negative, colcopy and colposcopy normal. Many studies report the effects that Licorice can have anti-inflammatory, antivirus, antilulcer, anticarcinogenesis. The Licorice Constituents Glycyrrhizin and aglycone Glycyrrhizic acid, various polyphenols, and polysaccharides are reported to induce apoptosis on some neoplastic cells (i.e prostate cancer cells) to protect against carcinogen-induced DNA damage and to act as suppressive agents. Conclusion: Considering the success reported for our patient Licorice could prove effective also for treating intraepithelial lesions of the cervix and prevent their evolution towards more severe condition.

P67-1151
MANAGEMENT OF A GIANT UTERINE LEIOMYOMA - A CASE REPORT

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Problem statement: Uterine leiomyomas are the most common tumour of the female reproductive tract but giant myomas (greater than 11.4kg) are exceedingly rare. They may be life threatening by causing pressure effects on the heart, lungs and adjacent organs. We present a case of a 53-year-old woman with a massive uterine fibroid and discuss the multidisciplinary approach in management of this complex surgical patient. This case illustrates the importance of proper surgical management and peri-operative care in ensuring good outcome following excision. Method: We report a case of a giant uterine fibroid and discuss the peri-operative management of a patient with a giant
surgeons and the remaining abdominal wall defect was weighed 27.8 kilograms which included a benign subserosal fibroid. This case illustrates the pivotal role of multidisciplinary care has then been extended for use in complicated surgical and obstetric management of severe blood loss in military trauma settings which of the National Massive Transfusion Protocol initially created for the haemorrhage and postoperative complications. We explore the use for patients undergoing radical hysterectomy with lymph node dissection on post-operative day 7. Conclusion: Surgical excision of giant uterine leiomyoma is an evolving entity that is challenging, but also carries a high rate of morbidity and mortality given the risks of massive haemorrhage and postoperative complications. We explore the use of the National Massive Transfusion Protocol initially created for the management of severe blood loss in military trauma settings which has then been extended for use in complicated surgical and obstetric patients. This case illustrates the pivotal role of multidisciplinary care in the management of complicated surgical patients and the need for comprehensive pre-operative assessment, optimal intra-operative management and careful post-operative care.

P68-1421 IDENTIFICATION OF RISK FACTORS IN PATIENTS WITH POSITIVE LYMPH NODE AFTER RADICAL HYSTERECTOMY FOR EARLY STAGE CERVICAL CANCER

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P69-1224 DO MEN BENEFIT FROM LETROZOLE FOR THE TREATMENT OF EARLY STAGE BREAST CANCER WITH POSITIVE LYMPH NODE AFTER RADICAL HYSTERECTOMY FOR EARLY STAGE CERVICAL CANCER

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Problem statement: There is currently no consensus for the treatment of men with idiopathic infertility. Aromatase inhibitor 1. Aromatase is an enzyme which coverts testosterone to estradiol and androstenedione to estrone. Aromatase inhibitors like Letrozole and Testolactone can increase endogenous testosterone production without any increase in circulating estrogens as seen with estrogen receptor modulators like clomiphene. This approach has been applied to those with T/E2 ratio less than 10 since the publication of Cavallini et. al12. However, the number of men with T/E2 ratio less than 10 constitutes only a small population of men with idiopathic infertility. Methods: This is a prospective study at KK Women’s and Children’s Hospital which was approved by IRB and Health Science Authority of Singapore from February 2015 to March 2017. Informed consent was taken from all participants. All men who had sperm density of less than 5 million were worked up as per the hospital’s protocol and were excluded from the study if there was a known cause for low sperm count. Men with idiopathic oligozoospermia and non-obstructive azoospermia were recruited. Serum testosterone (T) and estradiol (E2) levels were measured upon recruitment. All men had Letrozole 2.5mg per day for 4 months. Serum testosterone, serum estradiol and sperm analysis were repeated upon completion of treatment. Embryologists reporting the semen analysis were blinded to the study. We recruited 28 men who had an age of the population was 37.3 years and the mean BMI was 27.2 kg/m². 4 of the 28 men (14.3%) had T/E2 levels less than 10. Common side effects included loss of libido, headache, fatigue and weakness but nobody dropped out of the study because of side effects. All of them had an improvement in T/E2 ratio after treatment (p=0.0001) (Table 1). There was improvement in the density of sperm post treatment for the whole population (p=0.0004), but subgroup analysis of men with T/E2 ratio less than 10 did not reach statistical significance (p=0.5) (Table 2). Conclusion: T/E2 ratio improved in all patients who took Letrozole regardless of their pre-existing T/E2 ratio and there was statistical improvement in sperm density for the entire group after treatment with Letrozole. The frequency of low T/E2 ratio is only 14% in our study and Letrozole can potentially be given to more patients if we use it for treatment of idiopathic oligozoospermia regardless of the T/E2 ratio. Considering the relatively small sample size, further work is needed to validate these findings.

References:

P70-1590 THE ACCURACY OF FETAL ULTRASOUND FOR PREDICTING SEQUELAE IN FETUSES INFECTED WITH CONGENITAL CYTOMEGALOVIRUS AFTER PRIMARY MATERNAL INFECTION

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Problem statement: Cytomegalovirus infection is the most common fetal viral infection worldwide that can lead to severe long-term medical conditions. Antenatal diagnosis of primary cytomegalovirus infections with proven fetal transmission and so potential adverse perinatal outcomes and long-term complications, is a major challenge in perinatology. In today’s era of prenatal ultrasound for predicting sequelae in fetuses infected with congenital cytomegalovirus after maternal primary infection. Methods: A
prospective observational study was conducted from 1996 through 2012 in pregnant women with serological evidence of primary cytomegalovirus infection and proven transmission to the fetus, based on viral load in the amniotic fluid. All patient underwent a prenatal ultrasound. Termination of pregnancy was offered in patients with severe fetal cytomegalovirus infection. Live-born, congenitally infected infants underwent hearing and neurological clinical assessments to detect symptoms of cytomegalovirus infection. Results: Among a cohort of 355 pregnant women with primary cytomegalovirus infection 26% and 8% of vertical transmission were included in this study, including 64 singletons and 3 twin pregnancies (69 fetuses). Eight fetuses were lost to follow-up and so a total of 61 congenitally infected fetuses were included in the final analysis. Of these remaining 61 fetuses, termination of the pregnancy was performed for 26. In 11 of these 26 cases ultrasound demonstrated abnormal findings. Autopsy provided in all 26 cases histological evidence of fetal cytomegalovirus infection. In the 15 terminated fetuses without ultrasound anomalies, autopsy revealed pathohistological cytomegalovirus lesions in 13 cases, including 6 anomalies in the central nervous system and 7 cytomegalovirus inclusions in the lung, liver, pancreas and adrenal glands. Isolated placental cytomegalovirus inclusions were reported in 2 fetuses. Among the 35 live-born infants, targeted prenatal ultrasound revealed abnormal findings suggestive of congenital infection in 12 fetuses. Of these 12 infants, 6 had normal clinical evaluation, 5 were detected with antenatal ultrasound and 1 was diagnosed with neurological developmental delay. Conclusion: Fetal ultrasound anomalies were detected in 37.7% of pregnant women with primary cytomegalovirus infection acquired in early pregnancy and proven fetal infection, and were confirmed by autopsy or postnatal clinical evaluation in 73.9%. Cytomegalovirus-related anomalies were also detected by autopsy or postnatal clinical evaluation in 55% of infants with normal fetal ultrasound evaluations. These results confirm the correlation between prenatal ultrasound anomalies and postnatal clinical sequelae in fetuses with congenital cytomegalovirus. Though, it is important to realize that, a completely normal prenatal ultrasound assessment does not guarantee a normal clinical outcome.

P71-1483 ANTI-OXIDANTS FOR FEMALE SUBFERTILITY – A SYSTEMATIC REVIEW

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Background: A couple may be considered to have fertility problems if they have been trying to conceive for over a year with no success. This can occur at any time in a woman’s reproductive cycle, up to a quarter of a woman’s fertility. Many women are faced with treating infertility and being asked to make decisions about whether taking a supplemental antioxidant when undergoing fertility treatment will improve their chances or cause any adverse effects. This is especially important, as many antioxidant supplements are uncontrolled by regulation. Antioxidants are thought to reduce the oxidative stress brought on by these conditions. Currently, limited evidence suggests that antioxidants improve fertility, and trials have explored their use in a variety of settings. This review assesses the neurological anomalies, classified as severe in 4 cases. Among the other 23 live-born infants with no abnormalities during their prenatal ultrasound, 5 were infected with antenatal ultrasound and 1 was diagnosed with neurological developmental delay. Conclusion: Fetal ultrasound anomalies were detected in 37.7% of pregnant women with primary cytomegalovirus infection acquired in early pregnancy and proven fetal infection, and were confirmed by autopsy or postnatal clinical evaluation in 73.9%. Cytomegalovirus-related anomalies were also detected by autopsy or postnatal clinical evaluation in 55% of infants with normal fetal ultrasound evaluations. These results confirm the correlation between prenatal ultrasound anomalies and postnatal clinical sequelae in fetuses with congenital cytomegalovirus. Though, it is important to realize that, a completely normal prenatal ultrasound assessment does not guarantee a normal clinical outcome.

P72-1326 ROLE OF ANTI-PHOSPHOLIPID SYNDROME IN THE STRUCTURE OF REPRODUCTIVE LOSSES

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According to the recent data, the cause of miscarriage and development of obstetric complications in 70-75% of cases are various violations of hemostasis and among them, 27-42% cause is the antiphospholipid syndrome (APS). In pregnant women with APS, there is an increase in the coagulation potential with signs of intravascular pathologic thrombogenesis combined with an increase in thrombophilia markers, which is aggravated during pregnancy against an adaptive increase in coagulation. Circulation of antiphospholipid antibodies is the determining factor in the development of the unpleasant course of pregnancy and perinatal outcomes. The aim of the study was to analyze the reasons for the hospitalization of women with miscarriage in the gynecological department of the Tashkent Medical Academy (TMA) for the period from 2013 to 2015. During this period, 9,278 women were hospitalized for spontaneous abortions, with started, incomplete miscarriages and with undevoloped pregnancies. The age of women ranged from 20 to 37 years, the average age was 25.6 ± 2.4 years. Primary pregnancy were 1028 (15.4%), patients with 2-3 pregnancies and 4 or more pregnancies made up 3120 (46.7%) and 2532 (37.9%) respectively. During gestational analysis, it was found that up to 6 weeks of pregnancy, abortion occurred - in 12.4% women, in the period of 7-12 weeks - in 48.3%, 13-16 weeks - in 24%, 16-20 weeks - in 3%, 21 weeks of pregnancy, and 14.9% of patients had abortion at a period of more than 16-22 weeks of gestation. All women underwent blood coagulation analysis. The obtained data revealed deep violations in the blood coagulation system of pregnant women: 89.3% had hypercoagulability, in 43% of patients - increased platelet aggregation; 36% had thrombocytopathy. In 19% of pregnant women, hemostasis anticoagulant test for the presence of lupus anticoagulants, antithrombin III, heparinase (anticoagulants, antitrombin III, heparinase) was diagnosed with APS. All women with APS, in addition to therapy aimed at improving the rheology of blood (low molecular weight heparin, antiaggregants, rheology of blood (low molecular weight heparin, antiaggregants), while maintaining the threat of interruption pregnant women received hormonal support (hydrocortisone) until 20 weeks of pregnancy. Thus, the findings indicate a high incidence of fetal women attending a fertility clinic because of male partner infertility. The primary review outcome was live birth; secondary outcomes included clinical pregnancy rates and adverse events. Results: We included 50 trials involving 6510 women. Investigators compared oral antioxidant supplements, including combinations of antioxidants, N-acetyl-cysteine, melatonin, L-arginine, myo-inositol, D-chiro-inositol, carnitine, selenium, vitamin E, vitamin B complex, vitamin C, vitamin D-calcium, Cr2010, pentoxifylline, omega-3 acids versus placebo, no treatment/standard treatment or another antioxidant. Low-quality evidence suggests that antioxidants may be associated with an increased birth rate compared with placebo or no treatment/standard treatment (OR 2.13, 95% CI 1.45-3.12, P 0.001, 8 RCTs, 651 women). This suggests that among subfertile women with an expected live birth rate of 20%, the rate among women using oral antioxidants is between 26% and 43%. Low-quality evidence suggests that antioxidants may be associated with an increased clinical pregnancy rate compared with placebo or no treatment/standard treatment (OR 1.52, 95% CI 1.31 to 1.76, P 0.001, 26 RCTs, 4271 women). There was insufficient evidence to determine whether there was a difference between the groups in rates of miscarriage (OR 0.79, 95% CI 0.58-1.08, P = 0.14), multiple pregnancy (OR 1.00, 95% CI 0.73-1.38, P = 0.98) and gastrointestinal disturbances (OR 1.55, 95% CI 0.47-5.10, P = 0.47). The overall quality of evidence was limited by serious risk of bias associated with poor reporting of methods, imprecision and inconsistency. Conclusions: This review has shown that there is low-quality evidence that taking antioxidants may provide benefit for subfertile women by improving live births and clinical pregnancies. There was insufficient evidence to draw any conclusions about the adverse effects of miscarriage, multiple births or gastrointestinal effects as a group in the clinical groups. Most studies in this review compared to that published in 2013, which found no significant difference in outcomes. Unfortunately, the quality of these new studies is poor. Therefore, further high-quality research is needed to strengthen the association between antioxidants and subfertility outcomes and provide women with stronger evidence of benefit or harm.
Correct and timely diagnosis of the scar integrity on the uterus after CS fluctuates between 30% and 80%. This indicator in TMA for the period from 2015-2017 amounted to 17.2%. In recent years, the method of vaginal delivery after the previous CS has become of special importance, the success of which depends on several factors (cervical maturity, development of regular labor, echo-dopplerometric data of scar availability, scar type and psychological mood of a woman for vaginal birth). In addition, in diagnosing the consistency of the scar on the uterus, attention is increasingly focused on echodopplerometric studies that significantly affect the outcomes of pregnancy and childbirth in women with a scar on the uterus. An important role is played by the psychosomatic state of a woman, which often leads to an unreasonable refusal of a woman with a scar on the uterus from natural childbirth. A retrospective analysis of the history of delivery of 90 women with an operated uterus in anamnesis and a prospective analysis of the course of pregnancy and childbirth of 60 women with CS in the anamnesis was made. To carry out the research, studies were made: clinical and anamnestic study, study of the degree of anxiety with the help of Spilberg and Luscher tests, laboratory, gynecological, instrumental (ultrasound, dopplerometry), assessment of cervical maturity on the Bishop scale. The age of women was in the range from 20 to 45 years: from 20 to 25 years - 36%, 26-30 years - 31%, 31-35 years - 16%, 35-40 - 11%, 41-45-4% both groups of the study, the mean age was 27.2 ± 2.2 years. Retrospective analysis showed that natural birth was in 12% and repeated operation of CS in 88% of women, with indications of cardiopulmonary pathology (30%), premature rupture of the membranes (22%), women’s rejection of vaginal birth (20%). It is remarkable that vaginal delivery was in women with one only scar on the uterus. At the same time, a prospective group analysis revealed that 26% of women were delivered by VBAC, and repeated abdominal delivery was performed in 74% of pregnancies. In the prospective group, the most frequent indications were a woman’s refusal of vaginal birth (psychological component-25%), lack of readiness for delivery (16%). Out of 60 women with scars on the uterus from prospective analysis, 24 (40%) were enrolled in the first stage of labor and were consulted about vaginal delivery. The scar on the uterus is investigated on the ultrasound, dividing it into 3 segments, measuring their thickness and type, determining the blood flow of the radial arteries in the women area with the help of Doppler. In 66.6% of the examined women, the delivery resulted in VBAC with normal blood flow of the radial arteries, and in 33.4% of women by repeated operation. Analysis of the history of delivery of a woman, the degree of anxiety revealed that 16.7% of women had a high degree, 12.5% had an average degree of personal anxiety, which probably influenced the outcome of childbirth. Thus, in the management of labor in women with a scar on the uterus, factors such as psychosomatic status, degree of anxiety and scar status per ultrasound and dopplerometry play a decisive role in the outcome of birth.

P74-1553
BEHAVIOR AND DIET IN CERVICAL CANCER-CASE SERIES REPORT AND LITERATURE REVIEW
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Introduction: Cervical cancer is reported as the second leading cause of death in women worldwide. Romania is placed in the first place regarding cervical cancer mortality, with rates 2-2.7-fold higher than in other Central or East European countries. Recent studies revealed the importance of the diet and behavior habits on specific types of neoplasia, raising interest in the analysis of dietary compounds. Methods: We analyzed the important data bases about diet and cancer. We focused on the molecular types and interactions between them in cervical cancer therapy results. Our concerned was determined by cases diagnosed and treated in our clinic. Results: We report the 23 cases of patient who presented in our clinic for vaginal bleeding between 2012 - 2014. For all the patients after genital examination the cervical cancer was suspected and cervical biopsy was performed. In all cases cervical squamous carcinoma was confirmed. None of the patients were screened in the National Cervical Cancer Program. After complet imagistic and paraclinical examination the staging of the disease was stage I A and B cervical cancer. All the patients were treated according to the international protocol for cervical cancer. In each case 13 of them (group A) decided to change their life style after consulting a specialist in nutrition. They received Flavan-3-ols as a supplement with potential pharmacologic compounds for cervical cancer adjuvant therapy. The change in diet consisted in consumed increased amount of apricots plums, berries and cherries, and high flavonoid containing food as chocolate, red wine and different teas such as Camelia anissens. The other 8 patients did not accept the change of diet. We assessed the survival rate after 2 and 3 years which was of 7 in the group A and 3 in the group B. Conclusions: Behavior and diet can influence not only the risk of cancer but also the therapy response and survival rate. We don’t have sufficient information about specific diet that could improve the outcome in cervical cancer. Our case series is limited but it raises the awareness that behavior and diet could represent adjuvant therapy for standard cancer treatment protocols.

P75-1556
PARENTAL MOTIVATION IN MEDICAL TERMINATION OF PREGNANCY - OUR EXPERIENCE
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Introduction: Termination of pregnancy on medical background was restricted in Romanian legislation until 1990 and was allowed since then. The Penal Code of 2013 is the provide the only legal frame for medical based pregnancy termination but the situation when this is permitted are not clearly defined. Therefore, the parental motivation for such decision should be considered in order to make future norms more consistent. Methods: We performed a retrospective study on the pregnancy termination performed in our clinic between 2013-2016 on fetal anomalies ground in order to asses a pattern of the parental motivation request of pregnancy termination. Results: Between 2013-2016 there were performed 26 therapeutic abortions in our clinic out of 65 diagnosed anomalies. The indications were in 10 cases for plurimaformative syndrome, 6 cases of T21 diagnosis, 5 for CNS anomalies including isolated spina bifida, 4 cases for cardiac anomalies including atrial septal defects, 6 cases for other anomalies and 2 cases for parental motivation. Conclusions: The indication for pregnancy termination based on medical indication is closely related to their educational, social and cultural background and is important to be considered for the further legal provision concerning therapeutic abortion.

P76-1184
BREAST LYMPHOMA
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Problem statement: Breast lymphoma suppose the 0.04-1.1% of the breast malignant tumors and the 0.3-2.2% of extranodal lymphomas. Its clinical and radiological non-specificity makes extremely difficult the differential diagnosis with other breast carcinomas. Histopathological study is essential to achieve a diagnosis. Its treatment is based on chemotherapy and radiotherapy and occasionally surgical approach. Methods: A case of a patient with breast lymphoma is exposed. A 72 years old woman with antecedents of hypercholesterolemia, arterial hypertension, artherosclerosis and depression, 2 deliveries, menopause at 55, mother with postmenopausal breast cancer. She comes to our clinic for a 1 month evolution right breast tumor, with moderate pertumoral...
inflammation. Her general practitioner had started treatment with ciprofloxacin and had asked for a mammography. Simultaneously, she had a right postmenopausal vaginal bleeding and a right inguinal adenopathy. The physical exploration showed a normal left breast and a 6x7cm suspicious, retroareolar tumor in the right breast. Gynecological examination showed a firm and stenotic vagina and a lesion in Douglas, with no other genital anomaly. No axillary or inguinal adenopathies were touched. Mammography showed a right breast retroareolar 8cm tumor, poorly delimited, and an axillary adenopathy with increased cortical thickness in the iliac territory. Because of a high malignant disease suspicion, a biopsy was made, with the result of non-Hodgkin high grade B lymphoma. Axillary function was negative or malignant process.

Thoracic and abdominal computerized tomography (TC) informed about the suspicious right breast tumor previously described, axillary bilateral adenopathies (hypercaptating in right axilla), and undetermined mediastinal, paratracheal, paratracheal-retro caval and subcarinal adenopathies. Uterus inferior part and cervix had a size increase, with an increase of volume and density of vaginal area. Urinary bladder posterior wall was thickened, without separation plane with anterior uterine wall, affecting ureteral meatus and causing light ureterohydronephrosis. Multiple pathological adenopathies were seen in iliac territory, regional mettoms, inferior mesenteric area and perirenal space (Image 2). With the diagnosis of non-Hodgkin high grade B lymphoma, medullar biopsy was taken. It did not show lymphoma infiltration. 8 cycles R-CHOP chemotherapy treatment were administered, followed by local radiotherapy. Then, a PET/TC (positron emission tomography/computerized tomography) showed a residual right breast lesion, metabolically inactive, without increase, with an increase of volume and density of vaginal area.

Conclusion: A malignant breast tumor not always is a ductal or lobular carcinoma. Complete clinical interview and exploration are essential for a correct diagnostic orientation.

P77-1339 INTEGRATION OF NEW SURGICAL APPROACHES IN URINARY STRESS INCONTINENCE AFTER FAILURE OF TRADITIONAL TECHNIQUES

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Objective: To describe the results in a Pelvic Floor Unit of a Tertiary Hospital during 2016, highlighting those reviewed after TOT. Methods: We did a retrospective study of the patients referred to Pelvic Floor Unit during 2016. We collected the reasons for consultation, personal and gynecological backgrounds. All of them, did the EPIQ-questionare and a physical exam. After that, a diagnosis was established and a treatment was proposed for each patient. In this study, we describe those that present Urinary Stress Incontinence after TOT procedures to perform a personalised surgical treatment. Results: In total, 227 TOT procedures and 3 complications. The first patient, showed stress incontinence one year after the TOT procedure. During the phisical examination, uretha hipermobility was found. We first proposed a Pelvic Floor rehabilitation, but, without improvement, TVT procedure was done. The surgery was succesful. 8 months later the patient is asymptomatic. The second patient, had 2 surgical operations with TOT procedures. She continued with symptoms after the second procedure. We proposed a Remex-system. She didn’t have uretha hipermobility. The surgery was successful and currently she is asymptomatic. The third one, had two years before. She continues with urine stress incontinence without uretha hipermobility. We also.propsed a Remex-system. The surgery was succesful and currently she is asymptomatic.

Conclusions: The choice of the appropriate surgical approach after failure of the initial technique should be individualized. It is always important to differentiate the presence of urethal hipermobility or intrinsic urethral dysfunction, because in the latter case, the Remex-System would have a clear indication. The approach of recurrent SUI after TOT procedures were successfull in most cases. The incorporation of new surgical techniques is an important advance in the current management.

P78-1529 RETROSTERNAL PAIN AND DYSPNEA IN EARLY PUERPERIUM: A DIAGNOSIS OF PERIPARTUM CARDIOMYOPATHY

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Problem Statement: Peripartum cardiomyopathy (PPCM) is a rare cause of pregnancy-associated heart failure. The diagnostic difficulties arise when both cardiac and non-cardiac symptoms are present. The clinical presentation is variable and usually non-specific: dyspnea, orthopnea and pedal edema are the most frequent. Methods: We performed a clinical case retrospective review. Results: A 29 year-old, primipara, caucasion, undergoing a pregnancy without complications until 39 weeks and 3 days, when she was diagnosed with preeclampsia without severe features and was admitted for labour induction. She had a vaginal delivery of a healthy male new-born (weight of 3680 g, Aggar Index 9/10). In the first day postpartum, the patient described a sudden onset of retrosternal pain associated with dyspnea. Her vital signs were: Blood Pressure 180/100 mmHg, oxygen saturation 92%. Arterial blood gas showed: hypoxemia, hypocapnia and oxygen saturation 92%. Due to the hypothesis of pulmonary thromboembolism, a computed tomography angiography was performed where cardiomegaly with moderate bilateral pleural effusion was observed with no signs of thromboembolism. Additional investigations were performed, showing a normal electrocardiogram, elevated BNP (259), and a echocardiography with global reduction in LV systolic function (LVEF of 51%), mild left atrial enlargement, mild mitral regurgitation, and no signs of pericardial effusion. Additional investigations were performed, showing a normal echocardiogram, elevated BNP (259), and a echocardiography with global reduction in LV systolic function (LVEF of 51%), mild left atrial enlargement, mild mitral regurgitation, and no signs of pericardial effusion. Additional investigations were performed, showing a normal echocardiogram, elevated BNP (259), and a echocardiography with global reduction in LV systolic function (LVEF of 51%), mild left atrial enlargement, mild mitral regurgitation, and no signs of pericardial effusion. Additional investigations were performed, showing a normal echocardiogram, elevated BNP (259), and a echocardiography with global reduction in LV systolic function (LVEF of 51%), mild left atrial enlargement, mild mitral regurgitation, and no signs of pericardial effusion. After four days. Complete recovery ensued at the three-months follow-up, with normal echocardiography (only mild mitral regurgitation) and Holter monitoring. Conclusion: PPCM remains a difficult condition to diagnose and handle, depending on the timing of presentation in relation to labour. The rarity of the condition, overlapping cardiomyopathy aetiologies and unspecific presenting features often result in late diagnosis. It is important as the prognosis is normally favourable. All women with PPCM should receive counselling on the potential risk of recurrence with future pregnancies. The risk is highest among women with previous LV systolic dysfunction, although women with recovered LV systolic function are also at risk.
hiprandrogenismo, is not yet a clear explanation, not knowing its connotations in therapeutically and its relationship with some metabolic parameters as insulin, resistance to insulin and body weight. Objectives: Research the relationship that exists in young women, without stigma of Hyperandrogenism, menstrual regularity and OMIF or normal ovaries to study eosinocrit, eosin, insulin and body weight. Materials and methods: We studied a group of 78 young women with OMIF and menstrual regularity (A) and another 74 women without OMIF and menstrual regularity (B). In all we investigated the levels of glucose, and fasting insulin, resistance to insulin (HOMA-IR) and its relation to body weight, discarding also hyperandrogenemia with Ti (free testosterone). Results: The mean age was 23.8±4.8 years in Group A and 24.2±4.2 in B. The IMC reached 24.4±2.8 and 23.2±4.3 in them respectively, being to 25 in the 44.7% of women of group A and 33.7% of the Group B (p=0.001). Blood glucose was 89.9±2.9 mg/dl to 85.3±6.6 mg/dl in groups A and B (p=0.001). HOMA-IR reached 3.0±4.1 in Group A and 1.7±0.6 in B (p=0.001), determining group 46% had values of HOMA-IR ≥3, while in the B only 4% exceeded this value (p=0.0001). Conclusion: These findings are suggestive that in women with OMIF and menstrual regularity, the insulin resistance and hyperinsulinemia would have as an initial deleterious effect on the ovarian function, which translates to greater recruitment follicular with a greater number of antral follicles to the eosinocritographic study, ignoring even its further evolution.

**P80-1144**

**PERTONEAL ENDOMETRIOSIS RATE IN WOMEN WITH ABNORMAL IMMUNOHISTOCHEMICAL CHARACTERISTICS OF THE NORMAL ENDOMETRIUM**

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Endometriosis is one of the most common and severe diseases of premenopausal women which negatively affects quality of life and fertility. Per the American Association of Reproductive Medicine (ASRM) recommendations, endometriosis is a chronic condition, which requires development of a long-term management plan for patient with maximum use of drug therapy to avoid repeated surgical interventions. The severity of the disease, the ambiguity of approaches and the absence of methods of treatment suitable for all patient population have predetermined interest of many researchers in the comprehensive study of this disease. However, despite numerous publications on this subject, the results remain poorly satisfactory. There are some reports that the eutopic endometrium in patients with endometriosis differs from that in healthy women in structure, proliferative activity, ability to invade (components of the proteolysis and angiogenesis system), state of the steroid receptors structure, proliferative activity, ability to invade (components of the endometrium from patients with and without endometriosis was compared with 30 normal endometrial samples from women without endometriosis (also with infertility but with laparoscopically confirmed endometriosis). The results were compared with 30 normal endometrial samples from women without endometriosis (also with infertility but with laparoscopically excluded endometriosis). For assessment of endometrial samples immunohistochemical analysis was used. It was found that the eutopic endometrium in patients with and without endometriosis was characterized by expression of estrogen receptors expression and decrease of progesterone receptors expression in combination with abundant expression of receptors for MPP-9 and Bsl-2. This allowed us to make conclusion about possible use of this method for early even preclinical diagnosis of endometriosis using only Pipele-biopsy of endometrium. Later we analyzed the results of laparoscopy in 60 women with infertility, who had abnormal (n=30) and normal (n=30) immunohistochemical characteristics of the eutopic endometrium. Per our data, external genital endometriosis was diagnosed by laparoscopy in 23 patients with abnormal endometrial characteristics (76,7%), what is much more than in patients with normal endometrium (33,3%). This difference was statistically significant (p=0,008). In conclusion, this method after proper evaluation could be promising clinical tool for early detection of mild endometriosis, which patients could have maximum benefit from laparoscopic intervention.

**P81-1145**

**SHOULD WE DO MYOMECTOMY IN WOMEN WITH INFERTILITY? A NEW CRITERIA FOR Decision MAKING**

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The role of uterine leiomyoma in women of reproductive age as a factor that influences fertility has been of concern by many researchers for many years. It’s importance as a research topic continues to grow as recently more women delay childbirth until later period of their life. It’s well known that submucosal myomas (types 0-2) are clearly associated with infertility and especially pregnancy loss. In case of the presence of such myoma deforming uterine cavity in most of the cases a hysteroscopic myoma resection would be appropriate option before attempts of conception. Association of leiomyoma without deformity of uterine cavity (FIGO type 3) with poor pregnancy prognosis is not so obvious. In this connection, an objective prediction of the potential impact of asymptomatic uterine leiomyoma on fertility and pregnancy outcome is of special importance. Reliable prediction of negative myoma impact on future pregnancy course could help with clinical decision about necessity of surgical intervention in only patients with “poor prognosis” avoiding invasive procedures in the rest of patients. It was found that the uterine peristalsis (contractility) of non-pregnant uterus can influence female fertility. It is believed that one of the mechanisms of uterine leiomyoma negative impact on fertility can be a change of amplitude and direction of normal uterine contractility in pregnant women during and during the "window of implantation." There’s some evidence that myomectomy could improve reproductive function and pregnancy outcomes in patients with abnormal peristalsis pattern. In our study 32 reproductive age patients with type 3 myoma have been included. In all patients, a computer-based analysis of uterine peristalsis has been performed during ovulation and ‘implantation window’. Among this group of patients 23 women were with ‘poor prognosis’ pattern of contractions and 9 were with ‘good prognosis’. After one year of pregnancy planning 5 of 9 of ‘good prognosis contractility’ got pregnant (55.5%) and only 4 of 23 poor prognosis contractility’ women (17.4%) with statistically significant difference (p=0.01). Furthermore, 14 of 19 patients in “poor prognosis” group decided to perform laparoscopic myomectomy after informed consent was signed. Surgery with standard technique was uneventful in all cases. 3 months’ post op the uterine contractility was reevaluated. It has been shown that after myomectomy uterine contractility had become “good prognosis” in 10 of 14 patients (71.4%). Patients could try spontaneous conception after 6 months’ post surgery. During 1 year of observation 7 of 10 patients with ‘good prognosis’ peristalsis pattern after myomectomy (70%) got pregnant and only 1 of 4 patients with “poor prognosis” peristalsis after myomectomy (25%). Investigation of uterine contractility in women with uterine leiomyoma non-deforming uterine cavity (type 3) may be one of the criteria that can be used for decision about whether myomectomy should be performed avoiding unnecessary risks of surgery in women with ‘good prognosis’ peristalsis pattern. Laparoscopic myomectomy probably can improve fertility in those patients who had infertility associated with “poor prognosis” uterine peristalsis. We need more data to clarify this hypothesis.

**P82-1311**

**EFFECT OF WAIST CIRCUMFERENCE ON LIPOPROFILE, INFLAMMATION AND REDOX STATUS IN HEALTHY POST MENOPAUSAL WOMEN**

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Objective: To evaluate the impact of waist circumference (WC) on lipid profile, inflammatory markers and oxidative stress in healthy postmenopausal women. Study design and methods: A prospective cross-sectional survey was conducted between December 2013 and June 2015 in Oran (west Algeria). Women with diabetes and high blood pressure, using anti-inflammatory drugs and having thyroid disease were excluded. Of 244 postmenopausal women, only 127 (56.52±8.27 years) healthy subjects were eligible to study. Women were divided into three groups per their WC: GI:
s80 cm; GII: 81–88 cm; GIII: 88 cm. In serum, we analysed lipid profile, CRP and fibrinogen. Pro-oestrogen status was assessed by thiobarbituric acid reactive substances (TBARS) and protein carbonyls. Antioxidant defense was performed by analysis of superoxide dismutase (SOD) and catalase (CAT) activities. Results: Compared to GI we noted an increase in TBARS concentrations (p<0.001) in GI and GII, and a decrease in HDL-C concentrations in GII (p<0.01) and GIII (p<0.001). CRP concentrations were 2-fold higher in GI (p<0.01) and 3.4-fold in GII (p<0.001). Fibrinogen concentrations was increased in GI (p<0.01). TBARS concentrations were increased in GI and GII (p<0.001). Carbonyls concentrations were elevated only in GI (p<0.001). SOD activity was decreased in GI (p<0.05) and GII (p<0.001), but catalase activity was decreased only in GII (p<0.01). We found, positive correlation between WC and; TG, HDL-C, LDL-C (r=0.688, p<0.000), TBARS, carbonyls (r=0.640, p<0.000) and CRP, fibrinogen (r=0.537, p<0.000). Inverse relationship between WC and; CAT and SOD activities (r=-0.589, p<0.001). Conclusion: In healthy postmenopausal women, high WC was strongly related to inflammation and oxidative stress and can lead to development of cardiometabolic disease.

P83-1425 LIFESTYLE AND BIOMARKERS RELATED TO BODY MASS INDEX IN HEALTHY POSTMENOPAUSAL WOMEN IN WEST ALGERIA

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Aim: To evaluate lifestyle and its relationship with inflammatory markers and oxidative stress to body mass index (BMI) among healthy postmenopausal women of west Algeria. Methods: 123 healthy postmenopausal women were divided into three groups per their BMI: GI (n = 34; age=61±7 years; BMI =22±1.6 Kg/m2; GII (n = 45; age=56±6 years; BMI =28±1.2 Kg/m2); GIII (n = 44; age=37±4 years; BMI=34.0±2.5 Kg/m2). The dietary survey was conducted using the 24hour call and recall method over a 3 day. The daily energy expenditure (DEE) was evaluated using the formula of Black et al., (1990). In serum, we analysed lipid profile, CRP and fibrinogen. Pro-oestrogen status was assessed by thiobarbituric acid reactive substances (TBARS) and protein carbonyls. Antioxidant defense was performed by analysis of superoxide dismutase (SOD) and catalase (CAT) activities. Results: Result: The energy balance (DEE) was negative in GI (0.8±0.19) and GII (0.89±0.19) and balanced in GI (1.06±0.36). The DEE was similar in GI and GII, and it was respectively 1897.22±161.49 and 1830.8±205.40 Kcal and was about 2024.6±166.76 Kcal in GII. Unbalanced dietary intake was noted. Breakfast represented 24% and 21% of total energy intake (TEI). Saturated fatty acids were 28% in GI, 31% in GII, and 37% in GIII of TEI. The consumption of dairy and starchy products was higher in GI compared to GII and GIII. Fibers intake were lower in GII and GIII compared to GI (p<0.1). TG concentrations were significantly increased in GII and GIII compared to GI (p<0.001). Values of LDL-C were more elevated in GI by 11.5% in GII (p<0.001) than GIII. HDL-C decreased in GI (p<0.05) and GII (p<0.001) than GI. CRP concentrations were 2.8-fold higher in GII and 4-fold higher in GIII compared to GI (p<0.001). Fibrinogen values were 1.6-fold more elevated in GII and 1.35-fold in GIII (p<0.001) compared to GI. TBARS concentrations were 2.48-fold increased in GI and 2.38-fold in GIII compared to GI. Compared to GI (p<0.001), carbonyls concentrations were increased by 43% in GI and by 81.6% in GIII. SOD activity was decreased significantly (p<0.001) by -44% in GI and by -45% in GII compared to GI. CAT activity was decreased significantly in GIII (-10.41%; p<0.001) and GI (-4.42%; p<0.001) compared to GI. Conclusion: Postmenopausal women have a bad lifestyle associated with dyslipidemia inflammation and oxidative stress. Nutritional education and regular physical activity were essential for the prevention of overweight and cardiovascular diseases in women.

P84-1139 USE OF PRP (PLATELET RICH PLASMA) WITH PLATELET DEGRANULATION IN TREATMENT OF INFERTILITY

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Introduction: PRP is a new promising regenerative therapeutic application which can offer therapeutic side effects as it is a direct product of own blood sample. PRP has been employed in several fields of medicine: from plastic surgery, maxillo-facial surgery, dental surgery, orthopedics, eye surgery and gynecology. PRP is highly rich in several growth factors that have a significant role in tissue regeneration. The main ones include epidermal growth factor, vascular endothelial growth factor, transforming growth factor beta 1 and beta 2, interleukins and tumor necrosis factors of different classes of platelet-derived growth factors, insulin like growth factor and hepatocyte growth factor. More recently, clinical trials have provided substantial amount of evidence that PRP can have many beneficial effects in the field of infertility through its regenerative effects. PRP applications have been demonstrated to have cell proliferative effects as well as anti-inflammatory effects while working on tissue repair. PRP application has also been associated with increased prostaglandin receptor activity. Prostaglandins receptors are the main actors that help maintain a thick and healthy endometrial lining, which in turn, helps with embryo implantation. Methods: We have started offering PRP applications for 10 patients with: recurrent implantation and IVF failures and patients who cannot obtain a desired level of endometrial thickness for a successful embryo transfer. The endometrial PRP application is administered approximately in 10 days of menstrual cycle and 48 h before embryo transfer. PRP was prepared from autologous blood. On around 10 day of menstrual cycle 8 ml of venous blood was drawn from the syringe pre-filled with anticoagulant solution and centrifuged immediately at 1200g for 12min. The blood was divided in three layers: red blood cells at the bottom, cellular plasma in the supernatant and a coat layer between them. The plasma layer and buffy coat were collected to another tube and re-centrifuged at 3300g for 7 min. The resultant pellet of platelets was re-suspended in 25% of supernatants and 100 ml of calcium gluconated was added. After 5-6 min, there it was happened the formation of a clot platelet degranulation. The clot has been removed, so 2 ml of PRP was obtained. The PRP was subsequently infused on the endometrium after controlling platelet degranulation at microscope.

Results: After application of PRP, the endometrial thickness was satisfactory in all the patients (8 mm), with endometrial three-layer pattern, before progesterone administration and embryo transfer was performed; of these patients with previous IVF failures, despite good quality embryos, beta-HCG was positive in 6 of them: the pregnancy is progressing normally in 4 women, one had an early miscarriage at 9 weeks’ pregnancy and 1 with biochemical abortion. Conclusion: We can suppose that multiple implantation failures were caused by inefficient expression of adhesion molecules and insufficient endometrial thickness which can hypothetically be more represented after PRP application; so, this application, in our lab, has replaced small treatments to obtain a desired level of endometrial thickness that are extended estrogen administration, vaginal sildenafil citrate and LPS with triptorelin injection, because anyone of these have proved effective.

P85-1140 UTERINE NATURAL KILLER CELLS IN PROLIFERATIVE ENDOMETRIUM OF INFERTILE WOMEN

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Introduction: Embryo implantation is influenced by local and systemic immune responses involving immunoglobulins, cytokines, hormonal and other endometrial factors. A synergism of these factors is critical for successful implantation and subsequent conception. Natural killer (NK) cells have been implicated to play a role in female reproductive performance. They have been thought to be associated with implantation failures, recurrent miscarriage or infertility due to either NK cell cytotoxicity or receptor gene expression. NK cells cause cytotoxic effects by inducing lysis or apoptosis of the target cells mediated by the release of granular components within their cytoplasm or secretion of cytokines, such as tumor necrosis factor-alpha, interleukin 10, interferon – gamma and transforming growth factor – beta. The human endometrium contains a substantial population of NK cells in several which vary in number and in proportion to the total number of endometrial stromal cells during the
Pregnancies and appropriate contraception. The regulation of uterine natural killer (NK) cells during the menstrual cycle. NK cells increase in number substantially in the mid-secretory phase and are the major endometrial lymphocyte population in the late secretory phase, the first trimester of pregnancy. Uterine NK cells are CD56, CD16 and CD138+ for the proliferative endometrial tissue samples were obtained with a Pipelle catheter, and the endometrial CD 16, CD 56 and CD138+ were determined. Results: Immunologic analyses are increasingly implemented in infertility diagnostics. One of the parameters of interest are uterine NK cells. Our study reveals presence of CD16 CD56 and CD138 in the proliferative endometrial tissue of infertile women. It was considered positive cases presence of several cells of CD 10 cells.

Conclusions: CD16 and CD56 cell abundance in the proliferative endometrial tissue of women with reproductive failure has suggested they may play a role in this pathogenesis. Common treatment for women with abnormal endometrial NK cells numbers is use of corticosteroids but it has not shown an efficacy. For this reason, in our lab we use a biophotonic therapy: as described in our previous study, through a special device connected to the computer, the woman received the spermatic biophotonic emission of her male partner, previously stored. The administration of spermatic biophotonic energy was carried out a few minutes before the intratubal insemination in acupuncture points and at pelvic and vaginal level, and on culture medium in which there are incubated embryos obtained through ICSI et/or PICSI. The pregnancy rate was significantly higher in this group of patients.

P86-1143
PUERPERAL CHRONIC UTERINE INVERSION: A CASE REPORT
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Uterine inversion is a rare condition that involves the prolapsing of the uterus through the cervix, commonly from complications of labor. This is a case of a 27-year-old, who delivered vaginally at home three years prior to consult, and presented with chronic abnormal uterine bleeding. The initial diagnosis was a cervical myoma, but three years prior to consult, and presented with chronic abnormal uterine bleeding. The initial diagnosis was a cervical myoma, but chronic abnormal uterine bleeding. Pregnancy rate was significantly higher in this group of patients.

P87-1327
SELENIUM SUPPLEMENTATION AND GESTATIONAL DIABETES
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Serum selenium levels in patients with diabetes and diabetic pregnancies were measured. The study showed that mean serum selenium levels were lower in patients with gestational diabetes mellitus (GDM) than in controls. The difference was significant in patients with GDM when compared to controls. The study concluded that selenium supplementation may be effective in preventing gestational diabetes mellitus.

P88-1510
OUTCOMES AFTER SACRAL COLPOPEXY WITH NON-ABSORBABLE PERMANENT POLYPROPYLEN MESH – 5 YEARS EXPERIENCE
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Problem statement: Sacral colpopexy is a reconstructive surgical technique intended to repair pelvic organ prolapse. It is associated with lower risk of awareness of prolapse, repeat surgery for prolapse, postoperative urinary stress incontinence (USI) and dyspareunia than a variety of vaginal interventions. Meshes currently available and used are lighter than those previously used but lack evidence of safety. We describe our experience with laparotomic and laparoscopic sacral colpopexy, including both native and post- hysterectomized women. Methods: Retrospective, descriptive study which included all 58 women who underwent a sacral colpopexy in a public Portuguese Hospital (Hospital Beatriz Ângelo) since its opening in 2012 until 2016. Our procedure included the use of non-absorbable permanent polypropylene mesh. Clinical records were analyzed and ethnicity, age, weight, active sexual life and past deliveries and its characteristics were evaluated. Medical history such as chronic hypertension and diabetes mellitus were investigated as well as type of surgery. Abdominal approach was compared to laparoscopic attending to operative time, average hospitalization time, intraoperative (anesthetic, bleeding and organ lesion), and post operative complications (relapse of symptomatic re-lapse, de novo USI, mesh extrusion, constipation, dyspareunia/pelvic pain and wound infection/dehiscence). Significance was set at P0.05 Results: 58 women were included - 22 underwent abdominal approach (subgroup1, S1) and 36 laparoscopic approach (subgroup2, S2). Conversion to laparotomy occurred in 5 laparoscopic sacral colpopexy; 2 of them because of anesthetic complications and the other 3 for difficulty in anatomic structures identification/another organ lesion. The typical woman who underwent sacral colpopexy in our hospital was a caucasian, overweighted, 57-year-old women with active sexual life (similar in S1/S2). All women had at least one vaginal delivery, 15% had 3 or more deliveries, 17% had operative vaginal deliveries and 19% had newborns weighing more than 4000g. Around one-third had chronic hypertension. The typical woman who underwent sacral colpopexy in our hospital was a caucasian, overweighted, 57-year-old women with active sexual life (similar in S1/S2). All women had at least one vaginal delivery, 15% had 3 or more deliveries, 17% had operative vaginal deliveries and 19% had newborns weighing more than 4000g. Around one-third had chronic hypertension. Two-thirds (in both subgroups) underwent hysterectomy in the same procedure, the other third consisted of vaginal vault prolapse. USI surgery was associated in 9%/8% (S1/S2) and 50%/31% (S1/S2) underwent vaginal repair. S1 showed shorter operative times (in average 53 minutes less) but longer hospitalization times (6 hours more). Follow up was between 2months and 4years (average 3years). Overall, relapse of symptomatic prolapse occurred in 14% of the cases, significantly higher in laparoscopic (S2: S1 62/22 and S2 23/6). Only 7% (4/58; S1 3/22 and S1 3/6) justified a new sacral colpopexy.
Extrusion occurred (laparoscopic), constipation affected 14% of women (8/58; S1 2/22 and S2 3/36) and dyspareunia/pelvic pain 7% of women (10/58; S1 2/22 and S2 8/36). No statistical differences were verified considering intra/postoperative complications between subgroups. Case 1 (C1) consisted of a unilateral USI, constipation and dyspareunia/pelvic pain, which is in accordance with the literature.

**P98-1532**

GESTATIONAL BREAST CANCER – MISCELLANEOUS PRESENTATIONS WITH CONSISTENT POOR OUTCOMES

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**Problem statement:** Gestational breast cancer is defined as breast cancer diagnosed due to pregnancy. Our case is a rare event, according to different series, affecting 15-35/100,000 deliveries. Methods: descriptive study with analysis and comparison of the three cases diagnosed and surveilled in the last two years, in a Portuguese Public hospital, Hospital Beatriz Angelo (having around 2000 deliveries/year), and for some authors, any time during lactation. Although it is one of the most common cancers in pregnant women, it is still an uncommon event which affects different series, affecting 15-35/100,000 deliveries.

Results: Case 1 (C1) consisted of a unilateral mass, identified initially 5 months after delivery in breastfeeding women. It was first diagnosed as a puerperal mastitis, with subsequent evolution to breast abscess. Breast cancer hypothesis was set considering presentation refractory to antibiotic treatment. Case 2 (C2) was diagnosed during pregnancy after palpation of a painless mass at 30 weeks of gestation (WG). After first appointment at 36WG, two weeks were needed for diagnosis and determination of induction of delivery. Case 3 (C3) refers to a woman with a previously known breast nodule, studied for its recurrence after delivery was observed. A total of 568 consecutive couples undergoing IVF centre, Ankara, Turkey

**Conclusions:** By reviewing these three consecutive cases of this rare event, we pretend to demonstrate that there are several possible presentations, affecting women either during or after pregnancy. All cases were diagnosed as infiltrating carcinomas with indication for mastectomy; in C1 and C2 after neoadjuvant chemotherapy. Conclusions: By reviewing these three consecutive cases of this rare event, we pretend to demonstrate that there are several possible presentations, affecting women either during or after pregnancy. All cases were diagnosed as infiltrating carcinomas with indication for mastectomy; in C1 and C2 after neoadjuvant chemotherapy. Conclusions: By reviewing these three consecutive cases of this rare event, we pretend to demonstrate that there are several possible presentations, affecting women either during or after pregnancy. All cases were diagnosed as infiltrating carcinomas with indication for mastectomy; in C1 and C2 after neoadjuvant chemotherapy. Conclusions: By reviewing these three consecutive cases of this rare event, we pretend to demonstrate that there are several possible presentations, affecting women either during or after pregnancy. All cases were diagnosed as infiltrating carcinomas with indication for mastectomy; in C1 and C2 after neoadjuvant chemotherapy.
THE LEVEL OF CYTOKINES IN THE PERITONEAL FLUID IN WOMEN WITH EXTERNAL GENITAL ENDOMETRIOSIS

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Endometriosis is one of the most frequent gynecological diseases of women of reproductive age, which is accompanied by an inflammatory reaction. Particular attention is paid to the study of the role of cytokines in the development of endometriosis, since it is this medium that directly contacts endometrioid heterotopia. The aim of the study was to examine the pro-IL-2, IL-6, IL-8, TNFα content and anti-inflammatory (IL-4, IL-10) cytokines in a peritoneal fluid to clarify the inflammatory process in external genital endometriosis (EGE). 38 women with EGE were examined. 29.2% of patients had grade I endometriosis, 54.2% had grade II and 16.6% had grade II-III. 14 women who sought diagnostic laparoscopy for pregnancy planning without signs of endometriosis were control group. The diagnosis of EGE is established on the basis of endoscopic data and the results of histological examination. The severity of EGE was estimated by classification. The peritoneal fluid was collected during laparoscopic operations. The level of cytokines was determined by the ELISA method using the "cytokine" test systems (SPB, Russia). All women presented typical for genital endometriosis complaints of dysmenorrhea and pelvic pain. Studies have shown that the level of IL-6 in the peritoneal fluid of patients with EGE was higher than in the control group (20.4 ± 1.2 pg/ml versus 11.6 ± 1.05 pg/ml in the control) and was higher with EGE II-III degree of severity in comparison with EGE III-IV severity (23.8 ± 1.1 pg/ml). The content of IL-10 in the peritoneal fluid was higher at grade III-IV than in the I-II severity level and in the control group. The level of IL-4 and IL-8 in the peritoneal fluid in patients with EGE was higher than in the control group and correlated with the severity of the disease. And the levels of IL-2 and TNFα in the peritoneal fluid in EGE patients were sharply reduced. The obtained data testify to the unquestionable participation in the development and progression of EGE cytokines, both pro-inflammatory and anti-inflammatory, that ensure the invasion of endometrial cells, the growth of endometriotic foci, the formation of a microcirculatory bed, the induction of inflammation. Consequently, the immunological changes in the peritoneal fluid are due to the already formed foci of endometriosis.

CHANGES IN THE STATE OF THE IMMUNE SYSTEM IN WOMEN WITH CERVICAL INTRAEPITELIAL NEOPLASIA

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The cervical cancer is the second most common cancer in women. The most alarming are the data on the increase in the incidence among young women. With tumour growth, the nature of interactions in the system "immunocompetent cells, cytokines" changes, which underlies the violation of the mechanisms of antitumour protection.

The aim of the study was to study the content of some subpopulations of lymphocytes in women with CIN. We examined 32 women aged 21 to 40 years old with CIN of varying degrees, living in the Aral region. The control group consisted of 18 practically healthy women of the same age. Clinical and laboratory data were studied: clinical, colposcopic, cytological and immunological methods. The quantitative content of lymphocytes with the CD3, CD4, CD8, CD16, CD20 phenotype was studied using monoclonal antibodies of the LT series (Institute of Immunology, Sorbent LLP, Moscow, Russia). The nature of an anamnestic history established, that inflammatory diseases of genitals suffered more than half of women. Cervical erosions were in anamnesis in 63.6% of patients, and in 45.4% patients showed endometritis. It was revealed that among all diseases of the cervix, 31.8% accounted for ectopy with different causes. In different age groups, ectopy and pathology of the cervix met with approximately the same frequency. Immunological studies have shown that the total pool of T lymphocytes in patients with CIN was significantly lower (P < 0.01), the CD4 + lymphocyte count was 1.17 lower than the control values, and the number of CD8 + cells was 1.3 times higher than in women of the control group (P < 0.01). The level of lymphocytes with the marker CD20 was significantly increased in comparison with the control group (P < 0.05). Activation of CD25 + cells was observed in women with CIN (P < 0.01). The increase in the number of lymphocytes carrying a receptor for IL-2 (CD25+) and the level of IL-2 secretion in patients with CIN should be considered as an immunological response from the body to the course of the disease. A significant decrease in the CD69 + lymphocyte content was found in women with CIN, in contrast to the parameters of women in the control group (P < 0.01). The results of the study showed the presence of changes in the state of immunity in women with CIN. It can be assumed that the features of the functioning of the immune system can play a significant role in providing a predisposition or resistance to malignant neoplasms. It is known that 57% of CIN I spontaneously regress, 32% persist in the form of CIN I for a long time, 11% progress in CIN II, CIN III, and only 0.5% in invasive carcinoma. In contrast to mild dysplasia, CIN III turns into invasive cancer in 12% of cases for 2 years, and rarely regresses.
Among low-risk patients who underwent radical surgery, patient age at suf- ficient levels. Overall, our study indicates that laparoscopic conization can be used as a primary treatment for early-stage cervical cancer, with low rates of complications and acceptable recurrence rates. The results support the use of laparoscopic conization as an alternative to traditional surgical methods.

Conclusion: Our study provides evidence for the feasibility and safety of laparoscopic conization in the management of early-stage cervical cancer. Further research is needed to evaluate long-term outcomes and the impact on patient quality of life.

P96-1549 PRIMAR...Y CANCER: COMPARISON OF SURVIVALS
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Problem statement: Aim of the study was to analyze the overall survival (OS) and progression-free survival (PFS) of patients affected by high grade and advanced stage epithelial-ovarian-cancer (EOC) with at least 60 months of follow-up treated in a single gynecologic oncology institute. We compared PDS (primary debulking surgery) versus NACT + IDS (chemotherapy + interval debulking surgery) stratifying data based on residual disease with the intent to identify the rationale for therapeutic decision-making.

Methods: Observational retrospective study on consecutive patients with diagnosis of high grade and FIGO stage III/IV EOC referred to our center between January 2008 - May 2012. We selected only patients with a follow-up of at least 60 months. Primary endpoint was to compare PDS versus NACT + IDS in term of PFS and OS. Secondary endpoint was PFS and OS stratifying data according to residual disease (RD) after surgery in patients receiving PDS versus NACT + IDS. Finally, through Cox hazards models, we tested the prognostic value of different variables (patient age at diagnosis, RD after debulking, ASA stage, number of adjuvant-chemotherapy cycles) for predicting OS.

Results: A total number of 157 patients were included in data analysis. Comparing PDS arm (106 patients) and NACT + IDS arm (49 patients) we found no significant differences in terms of OS between the two groups (P = 0.34 versus 34.5 months, respectively) and PFS (17.3 versus 18.3 months, respectively). According to RD we found no significant differences in terms of OS between NACT + IDS patients with RD=0 and PDS patients with RD>0, contrary, median PFS resulted significantly lower in PDS patients receiving optimal debulking (R=1) in comparison to NACT + IDS patients receiving complete debulking (R=1). PDS arm was affected by a higher significant rate of other post-operative complications (grade 3 and 4). Diagnostic laparoscopy before surgery resulted significantly associated with complete debulking.

Conclusions: We confirm previous findings concerning the non-superiority of NACT + IDS compared to PDS for the treatment of EOC, even if NACT + IDS treatment was associated with significant lower rate of post-operative complications. To maximize patient’s survival and ensure good quality of life it is mandatory to identify the most effective treatment based on pre-operative conditions and on potential resectability. At this regard, laparoscopic primary assessment to tumor extension represents a valuable strategy for the decision making of primary or interval debulking surgery.

P98-1217 FALLOPIAN TUBE PROLAPSE AFTER ABDOMINAL HYSTERECTOMY: A RARE CAUSE OF CHRONIC PELVIC PAIN
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Problem statement: Hysterectomy is the most common major surgery performed in Gynecology. A rare complication of this procedure, with few cases reported in the literature, is fallopian tube prolapse, which is thought to occur in only 0.1% of all hysterectomies, more often after vaginal hysterectomy than laparotomy. Common symptoms are chronic pelvic pain, dyspareunia and copious watery vaginal discharge. Tubal diagnosis is carried out by histopathologic characterization. Surgical treatment is required. Since there is little awareness for this condition, tubal prolapse in usually misdiagnosed as granulation tissue at the vaginal cuff, therefore, delaying optimal treatment and prolonging patient’s discomfort. Methods: Retrospective study of a clinical case from our center, Hospital do Divino Espírito Santo de Ponta Delgada, and review of the literature. Results: A 34-year-old woman, smoker, was referred to our center for Low-grade Squamous Intraepithelial Lesion (LSIL), in 2011. After satisfactory colposcopy, guided biopsy was performed, which revealed Cervical Intraepithelial Neoplasia (CIN) 3. She underwent conization two times (2011 and 2014) for recurrence of the disease. In 2016, because of lesion persistence, a hysterectomy was performed. Surgery went as expected and postoperative recovery was uneventful. Patient was discharged after 48h, with no immediate complications. After 2 months, the patient started complaining of severe pelvic pain, nausea and urine incontinence, which led to multiple visits to the emergency department. Laboratory workup and pelvic ultrasound revealed no abnormal results. No vesico-vaginal fistula was found by Urológico. However, during gynecological examination, a prolapse of blood and bloody vaginal discharge, foul-smelling, mimicking urine leakage was found. Speculum examination also revealed a polypoidal, erythematous and strawberry colored growth with 2 x 2 cm, pending from the vaginal cuff, which looked like the fimbrial end of the fallopian tube. Pelvic pain was reproduced by traction of the polypoidal growth and vaginal palpation. An exploratory laparotomy was performed on May 2017. During surgery, right fallopian tube was found to be “imprisoned” in the vaginal cuff. Total salpingectomy and vaginal closure were performed, without incidents. Histopathologic characterization revealed usual fallopian tube histology, with chronic inflammation and necrosis foci, which confirmed the diagnosis. At follow-up, patient was asymptomatic and the vaginal cuff was scarred. Conclusion: Fallopian tube prolapse after abdominal hysterectomy is uncommon but gynecologists should be aware of this possible complication because it affects greatly women’s quality of life, including daily and sexual life. Definitive treatment is achieved by total salpingectomy, and the approach (vaginal, laparotomy or...
laporoscopy) should be decided case-by-case and depending on the surgeon’s experience. After surgical treatment, most patients become asymptomatic and usually no recurrence is reported.

**P99-1153**

**PERI-IMPLANTATION HEPARIN THERAPY IN INFERTILITY WOMEN WITH REDUCED SUBENDOMETRIAL BLOOD FLOW UNDERGOING INTRAUTERINE INSEMINATION**

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**Problem statement**: Angiogenesis and uterine blood supply are essential for endometrial growth and implantation. Thrombophilia such as antiphospholipid antibody, factor V Leiden mutation, prothrombin G20210A mutation, protein S deficiency, protein C deficiency, and antithrombin III deficiency, is often suspected as a possible cause of recurrent miscarriage and implantation failure after IVF. Endometrial blood flow has been investigated for predicting the pregnancy outcome, and poor endometrial blood flow could be related with poor IVF outcomes. It has been suggested heparin given in the perimplantation period may improve clinical outcomes in women undergoing ART, however, the efficacy of heparin is still controversial. The aim of this study was to evaluate the efficacy of heparin during intrauterine insemination cycles in the infertility women with reduced subendometrial blood flow and analyzed by presence of thrombophilia. **Methods**: Thirty-two women with elevated Resistance index (RI > 0.5) on hCG injection day of IUI cycle were enrolled and treated with low molecular weight heparin (Clexane® 40mg) during luteal phase. Anticardiolipin antibodies IgM/G, lupus anticoagulant, anti-β2 glycoprotein-1 antibodies IgM/G, protein C activity, protein S activity, antithrombin III activity, plasminogen activator inhibitor-1 (PAI-1), homocysteine, MTHFR gene polymorphism(C677T), and factor V leiden mutation were investigated. RI of subendometrial blood flow was measured by transvaginal ultrasonography on hCG injection day of IUI cycles. After heparin treatment in women with elevated RI, changes of subendometrial blood flow and h-HCG were measured 2 weeks after IUI. Per the presence of thrombophilia, changes of subendometrial blood flow, clinical pregnancy rate and ongoing pregnancy rate were compared. **Results**: In women with poor subendometrial blood flow, elevated RI 0.63 ± 0.08 was significantly improved after LMWH treatment to 0.38 ± 0.09 (Wilcoxon rank test, p<0.05). The clinical pregnancy rate and ongoing pregnancy rate after heparin treatment were 7/32 (21.9%) and 6/32 (18.8%). The thrombophilic risks such as antiphospholipid antibodies, protein S deficiency, protein C deficiency, antithrombin III deficiency, and hyperhomocysteinemia were found 15 out of thirty-two women. The declaration of RI after LMWH in women with thrombophilic risk was 25% ± 11.6, similar with 22 ± 0.09 in women without thrombophilic risk. In women with thrombophilia, clinical pregnancy rate and ongoing pregnancy rate after heparin treatment were 20.0% and 13.3%, separately. In women without thrombophilia, clinical pregnancy rate and ongoing pregnancy rate were 23.5% and 17.6%. Pregnancy outcomes after IUI were not different statistically regardless of thrombophilia. **Conclusion**: Elevated resistance index(RI) of subendometrial blood flow was significantly improved after low-molecular weight heparin(LMWH) treatment, however, ongoing pregnancy rates were not different regardless of thrombophilia. However, we could not confirm the protein microarray results for IL-8, Pref-1, angiopoietin-2, M-CSF, TIMP-1, CXCL14, and IGBP2-B. **Conclusion**: The protein expression pattern in the plasma is significantly altered between pPROM women with HCA and those without HCA. The increased levels of IL-6, MMP-9, and S100 A8/A9 in plasma of pPROM, women with HCA indicated that maternal systemic inflammatory response in the maternal plasma compartment is involved in the pathogenesis of HCA, and suggest candidates of potential new biomarker for HCA.

**P100-1095**

**A COMPARISON OF IMMUNOREGULATORY PROTEIN PROFILE IN PLASMA BETWEEN WOMEN WITH AND WITHOUT HISTOLOGIC CHORIOAMNIONITIS IN PRETERM PREMATURITY RUPTURE OF MEMBRANES**

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**Problem statement**: We aimed to compare the profiles of immune-regulatory proteins in plasma of women with preterm premature rupture of membranes (pPROM) and histologic chorioamnionitis (HCA) with those without HCA, and to identify novel plasma biomarkers for HCA. **Methods**: Plasma samples were obtained by ELISA confirmed significantly higher levels of IL-6, MMP-9, and S100 A8/A9 in women with HCA, compared with control subjects. **Conclusion**: The result of this study shows that high-frequency TENS was shown to be more effective than placebo TENS, whereas low-frequency TENS was found to be no more effective in reducing dysmenorrhea compared to placebo TENS. Additional studies to convince that high-frequency TENS is more effective than low-frequency TENS are needed.
ULTRASOUND EVALUATION OF CESAREAN SCAR – NICE PREVALENCE AND ASSOCIATED SYMPTOMS

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Problem Statement: Inadequate scarring, resulting from a cesarean section, can result in a niche, which may potentially be associated with gynecological symptomatology and poor obstetric outcomes. Our objective is to assess the prevalence of uterine niche in women with previous cesarean section and its relationship with gynecological symptoms, namely postmenopausal bleeding, abnormal uterine bleeding (AUB), urinary symptoms and vaginal discharge.

Methods: Prospective study, carried out between February 2016 and January 2017, which included all the women submitted to gynecological ultrasound who presented cesarean section scar, in an Ultrasonography Unit of a tertiary hospital. The presence of a niche was considered when the myometrial discontinuation was greater than 2 mm. In women with niche, we evaluated the shape, dimensions, total and residual myometrium. The gynecological symptoms were evaluated using the clinical records of the patients. Results: A total of 390 women were included, with a mean age of 46.8 ± 8.75 years (24-80 years). The overall prevalence of uterine niche was 15.6% (n=68). AUB was reported in 4.5% of women with a previous cesarean section without a niche (n=14) and 21.4% of women with a niche (n=12, p=0.001). The prevalence of vaginal discharge also appears to be increased in women with previous cesarean section who present a niche as compared to those without a niche [5.1% (n=16) vs. 14.3% (n=8), p=0.017]. However, no statistically significant differences were found regarding urinary symptoms between the two groups (p=0.927). The niche shapes most frequently found were inclusion cyst (40%), triangle (25%) and droplet (16%). No statistically significant differences were found in urinary symptoms (p=0.488), AUB (p=0.436) and vaginal discharge (p=0.844) related to the shape of the niche. Besides that, the size of the residual myometrium does not seem to affect the prevalence of AUB and vaginal discharge in women with a niche. The shape of the niche and the size of the residual myometrium do not seem to influence the presence of symptomatology.

MITOTIC SPINDLE MORPHOLOGY & AUTOMATIC ZONA PELLUCIDA SCORING USING OCTAX POLAR AIDETM SYSTEM

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Problem statement: Oocyte fertilization in assisted reproduction by the method of intracytoplasmic sperm injection (ICSI) is based on selecting mature oocytes in metaphase II stage (MII). Cytoplasm maturity, which is one of the oocyte maturity markers, does not have to correlate with nuclear maturity. This obstacle can be overcome by assessing the presence of the mitotic spindle to set the right time for oocyte fertilisation by the ICSI method. Visualisation of the mitotic spindle can be done by the OCTAX polar AIDETM system.

Methods: 16 women between the ages 25 – 44 were enrolled in the study. In total 113 oocytes in MII stage were assessed. Oocytes were divided into two groups A and B based on the patient’s age. 75 oocytes were in group A (38) and 38 in group B (38). Oocytes were screened on the WiLiCo-Dish (WiLiCo-Wells B. V.) for the presence or absence of the mitotic spindle using the OCTAX polar AIDETM system along with the morphology and automatic refraction assessment of the zona pellucida (ZP). All data were analyzed using IBM SPSS Statistics 23 software. All statistically significant results had P value<0.05. Results: Mitotic spindle was detected in 94 denuded oocytes 38 – 40 hours after hCG application and correlated significantly (P=0.006) with patient’s age. Oocytes with detectable mitotic spindle were further assessed for its morphology and classified into 4 categories (normal, dysmorphic, telophase, translucent). However, there were no significant differences between groups A and B in relation to their morphology. Automatic ZP assessment in all 113 oocytes suggested stronger developmental ability of embryos from group A (77.3 %) as compared to group B (50 %). Conclusion: Our study has demonstrated that mitotic spindle and automatic ZP evaluation are valuable non-invasive markers for more complex view on embryos suitable for embryo transfer.

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UTERINE ATONY: 10 YEAR REVIEW

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Problem statement: Uterine atony is thought to be the most common cause of postpartum hemorrhage and a major cause of maternal mortality worldwide. This study aimed to determine population specific risk factors and obstetric outcomes for uterine atony cases in our department for the last ten years. Methods: A retrospective observational study was conducted from 2006 to 2016 in Department of Obstetrics and Gynecology of Centro Hospitalar do Baixo Vouga. A total of 50 cases of uterine atony were identified for

(105-1407)
analysis in this study. Clinical files were reviewed concerning demographic factors, obstetric background, particularities of the pregnancy, prenatal diagnosis, and management strategies. Results: Fifty cases of uterine atony were diagnosed and managed in our department between 2008 and 2016. Twelve women (24%) were at least thirty-five years old. Seventy (14%) were primiparous. In thirteen cases (26%) labor induction was required. There was only one occurrence of multiple pregnancy. Most of pregnancies had a normal evolution, and the most common condition associated was gestational diabetes (7 cases) followed by gestational hypertension (2 cases). The average labor time was approximately 6.1 hours. Concerning the type of delivery, 18 women (36%) had a cesarean section while 32 (64%) had a vaginal delivery. The average weight of newborns was 3358g with 6 newborns (12%) weighing more than 4000g. Treatment was provided per severity of the clinical situation. In one case, the uterine massage was the only treatment needed. Almost every patient received oxytocin infusion. Rectal misoprostol was used in 39 women (62%) and subcutaneous in 19 (30%). Instrumental revision of the uterine cavity had to be undertaken in 14 women (28%). In 12 cases (24%), surgical treatment was needed: in 4 the atony resolved with uterine curettage and in 2 cases B-Lynch suture was performed successfully. Six hysterectomies were performed: 3 after cesarean delivery and 3 after vaginal delivery. Half of the women needed blood transfusion and 5 (10%) were admitted to the intensive Care Unit. Coagulopathy was identified as one of the major causes of postpartum hemorrhage and therefore associated with significant maternal morbidity and mortality. Understanding the population specific risk factors for uterine atony would be of great importance to prevent this clinical condition and decrease adverse outcomes. Nevertheless, a clear association between demographic factors, obstetric background and the occurrence of uterine atony could not be demonstrated in our population. Primarily was the most consistent risk factor. The major complications identified in our review were the need of blood transfusions, hemodynamic instability requiring admission to the intensive Care Unit and the need of hysterectomy as a lifesaving procedure in six women. When medical treatment fails, clinicians must be prepared to perform specific surgical measures to preserve future fertility. Unfortunately, in some cases hysterectomy cannot be avoided and prompt decision making is essential to prevent catastrophic outcome such as maternal death.

P106-1387
DIFFERENCES IN PERINATAL OUTCOMES BETWEEN WOMEN WITH SPONTANEOUS PREGNANCY AND PATIENTS UNDERGOING IN-VITRO FERTILIZATION IN WOMEN AGED 40 YEARS OR ABOVE

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Problem statement: In Western countries, women delay the age of their first pregnancy but postponing pregnancy is a risk for women and pregnancy outcomes. In women aged 40 years or above, the clinical pregnancy rate decreased and assisted reproductive techniques are often recommended. The objective of this study was to compare pregnancy outcomes in women with spontaneous pregnancy and assisted reproductive (IVF) in women aged 40 years or above. Methods: We retrospectively analysed data of a cohort of 479 women aged 40 years or above that gave birth in our hospital between January 2015 and December 2016. Multiple pregnancies were not included. Seventy-eight women got pregnant after IVF and 401 became pregnant spontaneously. Risk of pre-eclampsia, gestational diabetes, operative delivery and post-partum haemorrhage rates were assessed. Results: Vaginal birth rate was similar between SP and IVF (75.3% vs. 70.5%, p = 0.454). Likelihood of assisted vaginal delivery with the help of forceps or vacuum was lower in SP than in IVF (30.6% vs 36.4%, p=0.001). There was no significant difference between both arms of the study in pre-eclampsia, gestational diabetes and post-partum hemorrhage rates. Conclusion: In our study, perinatal outcomes were no significantly different in women aged 40 years or above after IVF and only a higher rate of assisted vaginal deliveries was detected.

P107-1557
ENDOMETRIOID CARCINOMA OF DOUGLAS POUCH 9 YEARS AFTER VAGINAL HISTERECTOMY AND BILATERAL SALPINGO-OOPHORECTOMY: IS ENDOMETRIOSIS THE ANSWER?

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Problem Statement: Primary extrauterine endometrioid carcinoma arises from ectopic endometrial tissue. In 1925, Sampson first reported malignant transformation of endometriosis to carcinoma, which may occur in up to 1% of the affected women. Primary extrauterine endometrioid carcinoma diagnosis even after hysterectomy and bilateral salpingo-oophorectomy is by far the most common site and extragonadal malignant transformation of endometriosis has been identified in only 20% of these patients. This indicates a not negligible risk of extrauterine endometrioid carcinoma diagnosis even after hysterectomy and bilateral salpingo-oophorectomy. Methods: Case report, clinicopathologic description and overview discussion of differential diagnosis and clinical management approach. Results: We report a case of a 69-year-old woman who underwent vaginal hysterectomy and bilateral salpingo-oophorectomy with Kelly-Kennedy surgery for the treatment of uterine prolapse and urinary stress incontinence. Histologic examination showed atrophic endometrium and adnexa, with no evidence of malignancy. Nine years after the surgery, the patient presented with abnormal vaginal bleeding. Abdominal MRI showed a cystic lesion just above Douglas pouch. A vaginal cuff fista was observed and a curettage of its tract was performed, whose biopsy pointed to endometrioid carcinoma, with importance to prevent this clinical condition and decrease adverse outcomes. Nevertheless, a clear association between demographic factors, obstetric background and the occurrence of uterine atony could not be demonstrated in our population. Primarily was the most consistent risk factor. The major complications identified in our review were the need of blood transfusions, hemodynamic instability requiring admission to the intensive Care Unit and the need of hysterectomy as a lifesaving procedure in six women. When medical treatment fails, clinicians must be prepared to perform specific surgical measures to preserve future fertility. Unfortunately, in some cases hysterectomy cannot be avoided and prompt decision making is essential to prevent catastrophic outcome such as maternal death.

P108-1056
VERTICAL TRANSMISSION OF HIV IN MEXICO 1986-2016

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Problem Statement: Perinatal transmission of HIV is a public health problem in many countries and a sensitive indicator that indirectly measures the quality of the health system and social justice. Mexico has an official record of perinatal HIV cases since 1986. Achieving the first generation of HIV and perinatal surveillance is a key for the goals of sustainable development (SDG) for the year 2030. Methods: Epidemiological records of vertical HIV transmission in Mexico were reviewed from 1986 to 2016. During this period, a total of 1,688 cases were reported. The most important critical causes are the late diagnosis of the cases, which originate from prenatal control without systematic screening through rapid tests. Critical events that are not always fulfilled. When the diagnosis is unknown, in some cases the risk of infection during labor and in the postnatal stage increases with breastfeeding. Results: In 1986, the first six cases of HIV were recorded in Mexico; in 1998, it registered 101 cases and from there, an increase that reached its historical maximum was observed in 2007, with a total of
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The etiology of cerebral palsy (CP) is very diverse and multifactorial including prenatal, natal, and postnatal factors. Studies have reported that the prevalence of cerebral palsy may vary between 1.5 and 3.0 per 1000 live births. Several hypotheses have been proposed to explain the origins of CP in very preterm babies. It may be the result of an ischemic insult in utero leading to both preterm birth and damage to the white matter. The immature babies are particularly vulnerable to cerebral hemorrhage and ischemia. Neonatal factors such as: seizures, prolonged ventilation, intraventricular hemorrhage, periventricular leukomalacia, bronchopulmonary dysplasia, sepsis.

Methods: The aim of this study was to identify antenatal, intrapartum and neonatal risk factors for cerebral palsy. Antenatal, intrapartum, and neonatal events were compared between 100 children with CP and 100 controls in a retrospective case-control method. Antenatal, intrapartum and neonatal factors were expressed as odds ratios and 95% confidence intervals.

Results: Major risk factors found in this study were history of spontaneous abortions in 28 (28%), anemia during pregnancy in 35 (35%), hypertension in 12 (12%), obesity of 2-3 degrees in 18% and history of infection in 8% mothers. In total, 44 (44%) children were born preterm and 10 (10%) were born in multiple births. Infants born preterm had a highly increased risk for CP, and constituted 44% of all cases; OR 2.18 (95% CI 29–39) in weeks 26–28, OR 95 (95% CI 32–42) in weeks 29–30, OR 42 (95% CI 24–70) in weeks 31–32, and OR 44.7 (95% CI 34–77) in weeks 33–34. Other factors associated with CP were being small or large for gestational age at birth, intrapartum growth restriction (IUGR) OR 7.4 (95% CI 2.4–18.5), abruptio placenta (OR 8.6, 95% CI 5.6–13.3), preeclampsia (OR 42, 95% CI 2.4–77), being a twin (OR 25.5, 95% CI 1.5–45.5), smoking (OR 4.1, 95% CI 1.1–15). In term infants, low Apgar scores were associated with a high risk for CP: OR 53.2 (95% CI 31–89) at score 6 at 5 minutes, OR 104 (95% CI 6.2–172) at score 3. Other factors associated with CP in term infants were breech presentation at vaginal birth (OR 3.8, 95% CI 2.4–10.4), instrumental delivery (OR 2.9, 95% CI 1.6–5.3), and emergency cesarean delivery (OR 2.5, 95% CI 1.6–4.2). The most frequent risk factors in the postnatal period were high fever in 12%, convulsion in 34%, intraventricular hemorrhage in 21%, hypoxic-ischemic encephalopathy in 28% and jaundice in 31% of newborns. Respiratory distress syndrome, prolonged ventilation was in 25% of newborns. Severe cranial ultrason abnormalities in 45% newborns were associated with an increased risk of CP in the neonatal period.

Conclusions: Our findings confirm that several antenatal factors as smoking, preeclampsia, obesity, anemia, IUGR; intrapartum factors as abortion placenta, preterm birth, breech presentation, low Apgar scores and neonatal risk factors as convulsion, intraventricular hemorrhage, hypoxic-ischemic encephalopathy, jaundice, respiratory distress syndrome, prolonged ventilation in babies are responsible for the etiology of cerebral palsy.

P109-1064 PREGNANCY AND HIV MUST BE AN ABSOLUTE INDICATION OF CESAREAN SECTION?

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Problem Statement: Vertical transmission of HIV can occur during pregnancy, birth and breastfeeding. C-section is a surgical procedure that aims to reduce maternal and fetal morbidity and mortality when there is an accurate indication to perform it. Absolute indications prevent morbidity and mortality. Until today, HIV infection is incurable. The pregnant woman should ideally be detected in the first trimester, as early as possible, as well as focusing on the first trimester of pregnancy due to the importance of the period. The priority states. The lesson learned from 34 years of HIV epidemic, we are working on a national process that impacts this population with maternal and child health. Mexico, meets the proposed. The possibility of perinatal transmission should be included on the national agenda. The obstetrician should be aware of the possibility of perinatal transmission and should make the decision to perform a cesarean section.

Methods: Specific proposal is to include pregnancy with HIV as an absolute indication for cesarean delivery at term, intact membranes and without labor, which should minimize the risk of perinatal transmission by not subjecting women to uterine activity and rupture of membranes. There is published evidence that, without prophylactic management, approximately 15-30% of infants born to HIV-infected women become infected during gestation, and 5-15% more can become infected through breastfeeding. With prophylactic treatment and suppressed viral load prior to birth reduces the risk of transmission during delivery. The uterine relaxe implies a risk of transmission and is aggravated when the rupture of membranes last more than 4 hours. The argument is the surgery allows maximum prevention of transmission through a clinical intervention and prevents a fetus with HIV that will carry the infection throughout its life. Results: The absolute indication of cesarean section of a pregnant woman with HIV can reduce the possibility of perinatal transmission to less than 2% when indicated at the end of pregnancy without labor, with intact membranes, suppressed viral load and prevents breastfeeding. Reducing the possibility of transmission should be included on counseling the couple, for decision making at birth and assessing risk benefit. Conclusion: Since 1985 the WHO has warned about high rates of cesarean section. There is a contradiction, cesarean is performed, without precise indication in documented cases and when it is needed, sometimes it is not performed. The severity of the transmission of perinatal HIV and the small number of cases justifies an absolute indication. If it is intended to reach, as a WHO brand, the first generation free of HIV in the year 2030, it is necessary to use all available resources of science. The absolute indication of cesarean section, are intended to prevent biological catastrophes during birth; to prevent transmission of HIV by the perinatal route, meets this preventive criterion that should be used as an indication in the practice of the obstetrician and is based on available scientific evidence that the care process can prevent 98% of cases of perinatal transmission. Professional accident risk during a cesarean section and a woman with HIV, Center for Disease Control (CDC) reports 0.3% reduces with prophylactic management of exposed status and inces with exposure to large amounts of blood or deep wounds.

Conflict of interest: None Declared.

P110-1172 PERINATAL RISK FACTORS ASSOCIATED WITH CEREBRAL PALSY IN CHILDREN BORN IN ODESA OBLAST REGION (UKRAINE)

2016, 92 cases in 22 states, six of these are concentrated in 58% of the cases and 92 cases in 2016. Each year a total of 2.2 million pregnant women. In the last year, of the total of 22 states, the cases were concentrated in 22 states, six of these are concentrated in 58% of the cases and 10 states not report any. In the last three years 2014–2016, in 41% of cases, report was made in the first 24 months and in 59% of cases after 25 months. Conclusion: Perinatal transmission of HIV continues to be a public health problem in Mexico. The main critical caused identified was the fragmentation of care. International organizations, WHO, UNFPA, UNAIDS and IPPF, proposed a frame of reference. Promote connection between HIV and AIDS services with maternal and child health. Mexico, meets the proposed. However, this link is still an open operation of the programs. In the last decade, we work on a national process that impacts this indicator, strengthening detection and increasing the quality of obstetric care is the main goal, as well as focusing on the first trimester of pregnancy due to the importance of the period. The obstetrician should be aware of the possibility of perinatal transmission and should make the decision to perform a cesarean section.

Conclusion: Perinatal transmission of HIV continues to be a public health problem in Mexico. The main critical caused identified was the fragmentation of care. International organizations, WHO, UNFPA, UNAIDS and IPPF, proposed a frame of reference. Promote connection between HIV and AIDS services with maternal and child health. Mexico, meets the proposed. However, this link is still an open operation of the programs. In the last decade, we work on a national process that impacts this indicator, strengthening detection and increasing the quality of obstetric care is the main goal, as well as focusing on the first trimester of pregnancy due to the importance of the period. The obstetrician should be aware of the possibility of perinatal transmission and should make the decision to perform a cesarean section.
elements as "baseline", "quick flick", "contractions", "static hold", "rest tone". The same measurements were performed in a 50-year-old woman with SUI symptoms without the history of stroke. The study was a part of research project number STM.E063.16.45. Results: During "rest tone" the eEMG activity in the woman after stroke was 4.24 and in the woman without stroke was lower and amounted to 1.60. During "quick flicks" and "contraction", bioelectrical activity was similar (7.51 vs. 7.77 and 9.46 vs. 9.38). Conclusion: Despite the higher resting bioelectric activity of PFM in the woman after stroke, no higher activity of these muscles during contraction was observed. This may be a signal that the awareness and ability to perform PFM contraction is lower in people after stroke. A full survey should be conducted on a representative sample of persons to verify this information.

P112-1089
KNOWLEDGE, ATTITUDE, AND BEHAVIOUR TOWARDS HUMAN PAPILLOMA VIRUS (HPV) VACCINE AMONG WOMEN IN CIRacas COMMUNITY HEALTH CARE
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Introduction: Cervical cancer is the second most common cancer suffered by women in the world. Infection of Human Papilloma Virus (HPV) is the main cause of cervical cancer which can be prevented up to 70% with vaccination. To reduce the incidence of cervical cancer, Indonesia is establishing HPV vaccination program for adolescence. However, in Puoksesmas, the primary health care center, HPV vaccination rates are still very low. Therefore, this study was conducted to find out the correlation between knowledge, attitude, and behavior of productive age women in Ciracas sub-district to HPV vaccination. Methods: This study used cross-sectional descriptive analytic design to find out the relationship between knowledge, attitude, and behavior of women in Ciracas Sub-district, Jakarta and the number of people receiving HPV vaccination. The data that has been collected were verified, edited, and coded for inclusion and processing using SPSS for Mac version 21.0. Characteristics of sample population are defined using specific outcome measures that include age, education level, current occupation, and sexual history. Results: In overall included population for the study (n=50), 26.7% have good knowledge, 39.28% have adequate knowledge, and 34.02% have poor knowledge on the definition and importance of HPV vaccination. Regarding the attitudes, 35.7% of overall respondents show good attitude, 33.9% show fair attitude, and 30.4% show poor attitude towards HPV vaccination.

Figure 1. Per the data collected, 26.7%, 39.28%, and 34.02% of the respondents have good, adequate, and poor knowledge on HPV vaccination. Among those in good knowledge category, people tend to have good attitude (66.7%) towards HPV vaccine. It is quite predictable that people with poor knowledge are very likely to have poor attitude (84.2%). However, this correlation is not proven to be statistically significant (p=0.052).

Figure 2. Most included population of the study (55.36%), accounts for poor behavior towards HPV vaccination, while 30.36% and 14.28% account for fair and good behavior. Among those with good knowledge, surprisingly, less people have good behaviour compared to the people in the adequate knowledge category. As predicted, people with poor knowledge are likely to have poor behaviour towards HPV vaccination.

Figure 3. There are only 7% of respondents with good behavior and majority have enough attitude with enough behavior (36%). There was a statistically significant correlation between respondent age and knowledge of HPV vaccine (p = 0.036). There was a statistically significant positive correlation between the educational level of the respondents and the knowledge of HPV vaccine (p = 0.001).

P113-1201
MULTIPLE PARASITIC FIBROIDS IN DIFFERENT LOCATIONS- A CASE REPORT
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Problem statement: Parasitic fibroid is a rare phenomenon in which the fibroid gets partially or completely separated from the uterus and receives its blood supply from another source. This rare type of fibroid was first reported a century ago which was considered to have arisen due to torsion around its pedicle becoming separated from the uterus and receiving blood supply from omentum or mesenteric vessels. But a sharp rise in the incidence of such cases in recent years following widespread use of laparoscopic power morcellation has thrown light on the iatrogenic etiology of parasitic fibroids. Methods: Description of a case of multiple parasitic fibroids in different locations discovered in a woman few years after laparoscopic myomectomy. Results: A 40-year-old woman was outpatient in Gynaecology clinic, Singapore General hospital with palpable masses in the abdominal wall. She gave history of laparoscopic myomectomy done for a single 6cm intramural anterior wall fibroid 7years ago. Ultrasound imaging revealed multiple discrete masses of about 4-7cm in the subcutaneous layers at the region of the umbilicus and a 7cm fibroid posterior to the uterus which clinched the diagnosis of parasitic fibroids. She underwent laparotomy with removal of three parasitic fibroids from the subrectus layer at the level of umbilicus and a fibroid of 8cm in the Pouchn of Douglas arising from the posterior peritoneal wall. The diagnosis was confirmed by histology. Conclusion: Reporting of such iatrogenic parasitic fibroids will help to remind gynaecologists to be cautious during laparoscopic morcellation of tissue to avoid this complication by taking adequate measures such as thorough inspection and repeated irrigation to remove all morcellated fragments during laparoscopy and morcellation within an endoscopic bag.
P114-1306
ENDOMETRIOSIS-ASSOCIATED OVARIAN CANCER: CLINICAL AND PATHOLOGICAL FEATURES OF A RETROSPECTIVE STUDY

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Problem statement: Endometriosis has been found to be associated with an increased risk of ovarian cancer. However, despite clear evidence revealing that endometriosis increases ovarian cancer risk, the most recent meta-analysis revealed that tumors originating from endometriosis have some common features: younger patients, lower stages at diagnosis and higher degree of differentiation, having better prognosis. Recent studies demonstrate that transformation of endometrial lesions into malignant neoplasm indicate that oncogenesis occurs more often in foci located in the ovaries. Specific histopathological sub-types are reported related to endometriosis related ovarian malignancies as clear cell and endometrioid carcinomas. Therefore, in a retrospective study, we analysed clinical and histopathological data of patients operated in the Gynecology Department of Coimbra University Hospital Center due to ovarian cancer detected between 2005-2015. Ovarian cancer histological specimens were carefully analysed to identify those exhibiting endometriosis foci in the stroma of malignant ovary, to ensure the coexistence of both diseases. Statistical analysis was performed using SPSS 22.0. Results: Histological evidence of endometriosis was found in 17 out of 261 patients diagnosed with ovarian cancer (6.5%). Concerning these patients' data evidenced that the most common symptoms were pelvic pain, abdominal distension, ascites, weight loss and nausea. Mean age at diagnosis was 61 years old, and 23 out of 31 were pre-menopausal. At the time of diagnosis, cancer stage distribution was 31% stage I, 6% stage II and 56% stage III. Ovarian malignancy occurred unilaterally in 14 patients and 2 patients were diagnosed with a synchronous ovarian and endometrial cancer. Regarding histopathological type, clear cell carcinoma (CCC) was the most prevalent histological type (10 CCC), followed by endometrioid carcinomas (4 EC) and remaining 3 cancers were of mixed type (clear cell and endometrioid). Four ovarian carcinomas arose from isolated ovarian endometrioma, including 3 CCC and 1 EC. Conclusion: In accordance with previous studies, clear cell carcinoma was the most common histopathological sub-type in endometriosis related ovarian cancers, followed by endometrioid carcinomas, and two rare synchronous ovarian and endometrial carcinomas were registered. In our clinical data, no significant differences were found in stage disease and age at diagnosis. Overall survival was comparable and further molecular studies should be performed to establish the cause-and-effect relationship between endometriosis and cancer. Finally, although incidence of ovarian cancer in endometriosis patients is not significantly high, endometriosis should be managed with special care to ovarian cancer early diagnosis and treatment.

P115-1403
MOLECULAR ASSESSMENT OF ENDOMETRIAL FLUID CAN IMPROVE THE SUCCESS OF EMBRYO IMPLANTATION AFTER ASSISTED REPRODUCTIVE TECHNIQUES

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Problem statement: Recurrent implantation failure (RIF) is a major challenge in assisted reproductive techniques that remains poorly characterized. Although controversial, it can be defined as the failure to achieve a pregnancy after 3 completed fresh IVF-ET cycles and endometrial receptivity plays a crucial role in the success of this process. Implantation is considered the limiting step in the success of assisted reproductive techniques. Endometrial fluid has been recently studied for its role as it undergoes profound molecular changes during the transient window of implantation. Methods: A review of the PubMed and Cochrane database was conducted before August 25, 2017 to identify studies published between 2007 and 2017. The following terms were used and adjusted for each database: endometrial fluid collection; endometrial fluid biomarkers; fluid accumulation of the uterine cavity; uterine fluid; endometrial fluid collection AND assisted reproductive techniques; endometrial fluid AND recurrent implantation failure. Studies were included if they compared the outcomes of analysis of endometrial fluid, and only 4 studies were selected based on their methodological quality.

Results: There are few studies that contributes to determine which molecular biomarkers are relevant and consistent. Transvaginal ultrasound assessment of the endometrial cavity remains the standard investigation to examine thickness, features and blood flow. However, it is a poor positive predictor of implantation, and the usefulness of some mid-secretory biomarkers for early secretory diagnostic was found to be limited. Besides, several different proteins presented in endometrial cavity fluid have been recently described, namely CSF3 and VEGF are critical predictive markers of successful embryo transfer. Furthermore, procathepsin, convertase 5/6 (PC6) is up-regulated in the human endometrium specifically at the time of epithelial receptivity and is strongly associated with endometrial receptivity and embryo implantation. Conclusions: There are strong indicators supporting that endometrial fluid collection and assessment could be used as rapid non-invasive biomarker for the assessment of endometrial receptivity. Therefore, it can predict and improve assisted reproductive techniques outcomes. The establishment of reliable biomarkers of endometrial receptivity will require a large-scale validation. The uterine fluid has advantages when compared with other tests, as it has a simpler proteome than endometrial tissue and is less invasive than tissue biopsies. Furthermore, it can be evaluated at the exact time of embryo transfer. The later use of appropriate biomarkers will contribute to find the suitable timing for embryo transfer, representing the deployment of this critical step and a fresh hope for infertility couples and for those who diagnose and treat unexplained infertility.

P116-1281
RECURRENT ACUTE NEUROPATHY IN PREGNANCY

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Peripheral autonomic nervous system neuropathy is the commonest diabetic complication. Seventy percent of women with diabetes, commonly resulting from persisting hyperglycemia or hyperglycaemia. Neuropathic features maybe the first feature of hyperglycaemia in gestational diabetes. With increasing incidence of obesity worldwide in pregnant women, neuropathy may become a more common feature. We present a case of recurrent acute neuropathy in a pregnant patient with type 1 diabetes of 8 years duration. A 25-year-old caucasian primigravida with type 1 diabetes of 8 years was booked for antenatal care at 12 weeks’ gestation. Pre-bookng diabetic control was sub-optimal with HbA1c of 8-8.5%. All booking parameters were normal. Past medical and surgical history were insignificant apart from history of herpes zoster infection at 6 years of age. Eye screen assessment showed background retinopathy in left eye. Further ophthalmic examinations were arranged in second and third trimesters. Glycaemic control was optimised with insulin titration maintaining HbA1C levels at 6-6.2%. Pregnancy progressed well until 29 weeks’ gestation when she developed acute tine tingling painful sensation of fingers, with macular rash all over the trunk and abdomen that were hypersensitive and unbearable to touch. She declined any form of clothing touching her body, wearing only undergarments. She was unable to lie on her bed, preferring instead to walk around the ward with essentials! All creams suggested for relief by neurologists and dermatologists were unhelpful. Pain relief was only achieved with opiates. Ophthalmic examination revealed increasing proliferative retinopathy in her left eye. Assessment of fetal wellbeing could not be carried out with either ultrasound or cardiotocography due to hypersensitivity, Multidisciplinary team agreed on need for delivery. She was given steroids to optimise fetal lung maturity and delivered by caesarean section that resulted in a live female infant, weighing 1.7kg with Apgar scores of 9/9. Hypersensitivity and acute neuropathic pain resolved spontaneously and the macular rashs a week from delivery. Two years later, she conceived spontaneously. Her diabetic control was suboptimal despite pre-conceptual advice. Glycaemic control was again optimised with insulin as per previous pregnancy. At 31 weeks’ gestation, she developed a similar acute episode of painful neuropathy responding only to opioid therapy. She was given intramuscular steroids and delivered by caesarean section at 32 weeks’ gestation. The baby was a live male infant weighing 2.34kg with Apgar scores of 10/10. Her pains was resolved spontaneously within two weeks. Acute painful diabetic neuropathy is part of a major diabetic neuropathic complication. Neuropathic symptoms and signs were diagnostic. Literature suggest neuropathy is rare in the young and within 10 years of diagnosis of diabetes. Although a rare entity on its own, it is part of the diabetic neuropathic spectrum. The differential diagnosis includes insulin neuritis and severe weight loss neuropathy from
cachexia and anorexia.

P117-1290 MANAGEMENT DIFFICULTIES ASSOCIATED WITH PORPHYRIA IN PREGNANCY

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The porphyrias are a group of metabolic disorders caused by enzyme deficiency responsible for the synthesis of heme. Defective enzyme is mostly caused by mutation in the gene coding for the enzyme. Most porphyrias are genetic and transmitted as autosomal dominant or recessive conditions. Acute attacks, known as acute porphyria crisis are marked by severe abdominal pain and recurrent acute attacks lead to a significant autonomic neuropathy as well as painless sensory neuropathy that may be associated with significant morbidity and mortality. Acute porphyria may be severe particularly in young women, most of which are cyclical and related to menstrual cycle. Chemical induced menopause has occasionally been used to abate recurrent attacks. A 35-year old Caucasian Para 1+1 woman with known diagnosis of porphyria was admitted with acute porphyria at hospital in 13 weeks’ gestation. Ultrasound examination confirmed a single active fetus consistent with gestation without abnormality. Her acute porphyria crisis features consisted of severe abdominal pain, bloating, migraine and neuro-psychiatric features of verbal aggression, anxiety and panic attacks with psychiatric/psychological behaviors. She was depressed, weepy and aggressive. She smoked 10 cigarettes a day leaving the ward to smoke regularly. Behaviors. She was depressed, weepy and aggressive. She smoked 10 cigarettes a day leaving the ward to smoke regularly. It was insufficient for cytogenetic analysis. After diagnosis of BML, patient underwent bilateral salpingo-oophorectomy followed by Letrozole. At 5 months’ follow-up, no further development of the disease occurred. The second case was concerned a 45-year-old premenopausal woman who underwent a hysterectomy 13 years earlier for uterine leiomyoma. She was referred to our center because of persistent cough. Multiple pulmonary bilateral nodules were found in chest radiography and CT. They showed no FDG uptake in PET. CT-guided biopsy of a pulmonary nodule was performed and the resected uterine leiomyoma was reviewed. Both specimens showed identical histopathological, immunohistochemical and cytogenetic characteristics, including sharing of 19q and 22q terminal deletions. These findings were consistent with BML and surgical castration was performed. During 4 months of follow-up, remaining lesions were stable. Conclusion: BML is generally considered a monoclonal tumor, with benign appearance and a biological behavior that suggests malignancy. The etiology of BML remains unclear. Our clinical cases support the surgically-induced vascular spread as the most likely causal hypothesis for BML. The diagnosis is challenging and should be based on similar histopathological and immunohistochemical pattern between lung nodules and uterine leiomyoma previously resected. Sometimes the uterine specimen is not available for retrospective review. In these cases, genetic study may be useful for differential diagnosis. Findings of consistent chromosomal abnormalities (deletions of 19q and 22q) allows individualization of BML as a genetically distinct entity, as supported by our study.

P118-1349 BENIGN METASTASIZING LEIOMYOMA: RARE MANIFESTATION OF A FREQUENT PATHOLOGY

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Problem Statement: Uterine leiomyoma is the most common benign gynecologic tumor. Benign metastasizing leiomyoma (BML) is a rare variant, characterized by multiple leiomyomatous lesions in distant locations, most commonly the lungs. BML is found primarily in reproductive aged women. Patients are usually asymptomatic and the disease is discovered incidentally. Typical radiological finding is multiple bilateral well-circumscribed pulmonary nodules. Histopathologically confirmed is required for definitive diagnosis. Treatment of BML is controversial and includes surgical and medical options. The course of this disease is usually indolent, but requires close surveillance.

Methods: Overview of two clinical cases of BML diagnosed in Portuguese Oncology Institute of Porto in the first semester of 2017 and review of the literature.

Results: The first patient was a 49-year-old premenopausal asymptomatic woman with history of total hysterectomy 10 years previously due to a polypoma of the uterus. She presented with miliary pattern in routine chest radiography, as well as in the computed tomography (CT) scan. Positron emission tomography (PET) showed weak fluorodeoxyglucose (FDG) uptake in lung nodules. The patient underwent a CT-guided biopsy of a pulmonary nodule which revealed spindle cells consistent with smooth muscle differentiation, without cellular atypia or necrosis, nor mitotic figures. Immunohistochemical staining was positive for smooth muscle actin, desmin, estrogen and progesterone receptors, while ki-67 index was low. Cytogenetic evaluation of lung tumor tissue showed 19q and 22q terminal deletions. Pathology of previous leiomyoma was requested from the hospital where hysterectomy was performed, but was insufficient for cytogenetic analysis. After diagnosis of BML, patient underwent bilateral salpingo-oophorectomy followed by Letrozole. At 5 months’ follow-up, no further development of the disease occurred. The second case was concerned a 45-year-old premenopausal woman who underwent a hysterectomy 13 years earlier for uterine leiomyoma. She was referred to our center because of persistent cough. Multiple pulmonary bilateral nodules were found in chest radiography and CT. They showed no FDG uptake in PET. CT-guided biopsy of a pulmonary nodule was performed and the resected uterine leiomyoma was reviewed. Both specimens showed identical histopathological, immunohistochemical and cytogenetic characteristics, including sharing of 19q and 22q terminal deletions. These findings were consistent with BML and surgical castration was performed. During 4 months of follow-up, remaining lesions were stable. Conclusion: BML is generally considered a monoclonal tumor, with benign appearance and a biological behavior that suggests malignancy. The etiology of BML remains unclear. Our clinical cases support the surgically-induced vascular spread as the most likely causal hypothesis for BML. The diagnosis is challenging and should be based on similar histopathological and immunohistochemical pattern between lung nodules and uterine leiomyoma previously resected. Sometimes the uterine specimen is not available for retrospective review. In these cases, genetic study may be useful for differential diagnosis. Findings of consistent chromosomal abnormalities (deletions of 19q and 22q) allows individualization of BML as a genetically distinct entity, as supported by our study.

P119-1391 MUSCLE METASTASIS FROM CERVICAL CARCINOMA: CASE REPORT

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Problem statement: The incidence of skeletal muscle metastasis from cervical carcinoma is less than 1%. It may be underestimated in the literature, due to quiescence and differential diagnosis. Moreover, several theories support that muscles have protective mechanisms against metastatic invasion. Muscle metastasis usually manifests as local pain, swelling and deformation. Diagnosis, per location, is challenging because the physical examination findings are not specific for muscle carcinoma metastasis. Metastatic nature of the lesion is confirmed by histopathological evaluation. Treatment options, may include surgery or chemotherapy. Muscle metastasis is generally associated with poor prognosis. Methods: Overview of a clinical case of muscle metastasis diagnosed in Divino Espirito Santo Hospital, six months after primary cervical carcinoma and review of the literature.

Results: A 60-year-old woman with medical history of Diabetes and Hypertension was diagnosed in our center with squamous cervical carcinoma staged as IB1 per the FIGO classification (International Federation of Gynecology and Obstetrics). She was submitted to radical hysterectomy, bilateral adnexectomy and pelvic lymphadenectomy, in Portuguese Oncology Institute of Lisbon, followed by adjuvant radiotherapy and brachytherapy. Six months later, during regular follow up, the patient presented with a single painful swelling in the right shoulder. Physical examination revealed a palpable mass at the tip of acromion that restricted shoulder mobility. The patient was investigated by ultrasonography and contrast enhanced computed tomography (CECT). The latter detected a mass in the deltoïd muscle with 5 cm of greater diameter, suggestive of bursitis or deltoid hematoma or cyst. The patient refused to perform a Magnetic Resonance of the shoulder. Needle aspiration cytology from the mass was negative for malignant cells and microbiology. As the swelling was progressively increasing in size, a surgical biopsy of the mass was planned. Histopathological examination was compatible with metastatic cervical carcinoma, as primary morphology. Systemic staging, through CT of...
the thorax, abdomen and pelvis, revealed pulmonary and bone metastasis. Additional metastatic infiltration of muscles (subscapularis muscle, large pectoralis, small pectoralis) and soft tissues around the right shoulder was also found. Patient was treated with palliative chemotherapy, using carboplatin and paclitaxel combination. At progression of the disease, she was admitted to the Palliative Care Unit and succumbed to the disease six months after development of muscle metastasis. Conclusion: Metastatic disease will develop in 15 to 61% of women with cervical cancer usually within the first two years of completing treatment. Surveillance after primary therapy for cervical cancer is uniformly recommended for early detection of recurrences. Skeletal muscle metastasis should be thoroughly investigated in presence of painful soft-tissue mass in a patient with known history of cancer. There is a lack of clear guidance for management of such patients. The clinical setting and condition of the patient should always be considered.

P120-1097 COMPARISON OF TWO GROUPS OF DRUGS IN THE TREATMENT OF SYMPTOMATIC UTERINE MYOMA

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Problem statement: Uterine leiomyoma is a common and benign connective tissue tumor. The prevalence is 30% of all women. Leiomyomas is the most important reason of abnormal uterine bleeding. In a common indication for myomectomy or hysterectomy in the world. The aim of this study is comparison of two groups of drugs in treatment of symptomatic uterine myoma. Methods: This is a comparative clinical trial on 48 women with symptomatic uterine leiomyome, accompanying bleeding referred to Dr. Rasekh clinic, Iran. Diagnosis was performed based on clinical symptoms, pelvic examination and ultrasonography. Patients were divided in two groups; one of the control group treated with Dydrogesterone and 24 patients in case group gonadotropin-releasing hormone agonist (Triptorelin acetate) for 6 months. Data collection was performed via questionnaires and statistical analysis by SPSS 21. Results: There is no significant difference between mean size of the myoma before intervention in case and control groups. Mean myoma size is not significant difference in Dydrogesterone usage (control group) before and at the end of six months of intervention. But the mean of myoma size is significantly decreased in Dydrogesterone usage (control group) before and at the end of six months of intervention. But the mean of myoma size is significantly decreased in Triptorelin acetate usage (case group) before the intervention 56.45 ± 5.84 and after intervention 50.06 ± 5.30 (pvalues.05) that represents a significant reduction of myoma size. Clinical bleeding symptoms improved in both groups which indicate response to treatment. Conclusion: Due to the complications of surgical procedures and the results of this research shows that there is a significant decrease in myoma size and response to treatment in Triptorelin acetate usage. Therefore, surgical procedure is not necessary. Medical therapy is recommended as the first choice of myoma treatment.

P121-1383 SUBSEQUENT RISK OF CANCER AMONG WOMEN WITH A HISTORY OF PLACENTAL ABRUPTION

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Problem statement: Little is known about relations between placental abruption and subsequent cancer incidence. Our aim was to assess the subsequent risk of cancer among women with a history of placental abruption. Methods: Data on women with placental abruption in a singleton pregnancy between 1969 and 2005 (n=7,804) were collected from the Finnish Hospital Discharge Register and the Finnish Medical Birth Register. The cohort was followed within the Finnish Cancer Registry until the end of 2012. Standardized incidence ratios (SIRs) for different cancers were calculated by dividing the observed numbers of cancers by expected numbers based on national cancer incidence rates. Results: During the follow-up, 632 cancers were found among women with a history of placental abruption. The overall cancer risk was not increased (SIR: 0.96, 95% CI 0.88-1.03). However, the history of placental abruption was associated with an increased risk of thyroid cancer (37 cases, SIR: 1.57, 95% CI 1.00-2.25), lung cancer (15 cases, SIR: 1.46, 95% CI 0.98-2.08), and acute leukemia (9 cases, SIR: 2.15, 95% CI 1.10-2.15). A decreased risk was found for anal and rectal cancers (6 cases, SIR: 0.43, 95% CI 0.16-0.94) and for breast cancer (217 cases, SIR: 0.85, 95% CI 0.74-0.97). Conclusion: This study provides new data concerning future health aspects of women with a history of placental abruption. Lifestyle factors associated with increased risk of placental abruption may explain the findings of this study to some extent.

P122-1246 INTRAHEPATIC CHOLESTASIS OF PREGNANCY AND ASSOCIATED MATERNAL-FETAL MORBIDITY AND MORTALITY – EXPERIENCE OF SIX YEAR’S OF A TERTIARY HOSPITAL

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Problem statement: The intrahepatic cholestasis of pregnancy (ICP) has an estimated incidence of 0.1-1.6% and is characterized by generalized pruritus (including hand palms and feet soles) associated with elevation total serum bile acids levels (BAL) and/or aminotransferases, in the second and third trimester of the pregnancy. Its etiology is unknown and the main associated complications are: preterm delivery, intrahepatic, intrapartum, postpartum, and, rarely, fetal death. The latter seems to be associated with BAL 40μmol/L. Ursodeoxycholic acid is used as a therapy for pruritus and therapy of ICP during pregnancy improves. Many authors suggest the delivery schedule ≥37-38 weeks of gestation. The recurrence rate in a subsequent pregnancy is 60-70%.
Methods: Retrospective descriptive study based on the analysis of the clinical processes of 47 pregnant women diagnosed with ICP in the last six years (2011-2016), at the Prof. Doctor Fernando Fonseca Hospital (Portugal, Lisbon). The analyzed variables were: antecedents of the pregnant woman, associated with ICP, labour and data of the newborn. Results: In this period, there were 47 cases of ICP whose average age was 28.8 years old (20-42 years old). Regarding the personal history of the pregnant woman, 20 (42.6%) were multiparous, of whom 4 (8.5%) had a history of ICP. At the time of ICP diagnosis, mean gestational age was 31.8 weeks (22-40 weeks) and BAL 40 μmol/L (10.8-190.1). Some 19 pregnant women (40.4%) BAL >40 μmol/L (40.4%), however, none were associated with fetal death. Concomitant to BA elevation, transaminases were elevated in 38 pregnant women (80.6%). Regarding delivery, the mean gestational age was 36.7 weeks (28-41 weeks). The cesarean delivery route occurred in 26 cases (53%), 16 (61.5%) of which in an emergency context due to a non-reassuring fetal state, suspected fetal-pelvic incompatibility or failure to induce labour. Concerning complications, there were: 17 preterm delivery (36.1%), whose average gestational age was 34.2 weeks (23-36); 10 cases (21.3%) of fetal death and 3 cases of fetal death. All newborns presented an Apgar Index 7 at the fifth minute. Conclusion: The results obtained are mostly per the most recent literature: diagnosis predominantly in the third trimester, elevation of aminotransferases concomitant to that of BAL, delivery after 36 weeks per the gestational age at the time of diagnosis, preterm delivery and suffering fetal as more frequent complications and, finally, a non-negligible recurrence rate. However, no fetal death was observed even with high BAL values, which may be associated with an early intervention.
and psychosocial problems associated with it. A spectrum of ultrasound manifestations associated with this syndrome, these can be severe and, consequently, it can be translated into a reduction of the abortion rate (only 1% concluded gestation) or at the prognosis level after birth. The prenatal diagnosis of TS is important in that it allows to anticipate and guide all the clinic representation of women from higher SES is likely attributable to funded differently in various countries, and the reported over – treatments (HT and IVF) and women not needing any treatment to underwent hormonal therapy (HT) and 77 women (6.6%) in vitro fertilization (IVF). 352 women (30.1%) had consulted a doctor and intragroup (women receiving treatments) differences were assessed by applying the chi-squared test. 

Problem statement: Socioenomic status (SES) may play a role in infertility treatment use and success of infertility treatments, in the use of assisted reproduction technology. However, research results are conflicting, some findings conclude that SES is associated with types and outcomes of treatment, contradictory to studies finding no such connections. Infertility is an important health problem affecting up to 15% of women of reproductive age. The objective of this study was to examine any association between SES and successful infertility treatments (there is no available data on failed treatments) in infertile women. Methods: 7479 parous women aged 20 to 49 years were drawn from a representative population based survey of Norwegian women. Some 1168 women (15.6%) reported infertility problems (tried for more than a year to get pregnant). 352 women (30.1%) had consulted a doctor and undergone hormonal therapy (HT) and 77 women (6.6%) in vitro fertilization (IVF). The study group included women who had undergone a few changes. The efforts of researchers are aimed at increasing their therapeutic effectiveness, reducing the number and severity of side effects. The aim of the study was to prevent obstetric and perinatal complications of anemia from early pregnancy. 

Methods: The study analyzed the course and outcome of the current pregnancy of 60 patients with anemia, depending on the start of treatment: 35, enrolled in 6-8 weeks, (I group) and 25 - in 20-25 weeks, Pregnancy (group II). Results: Clinical and statistical analysis of the state of somatic and reproductive health of the examined patients showed that in general the groups were comparable in terms of the main parameters analyzed. The age of the patients was between 22 and 37 years and was 27.5 ± 5.3 years. In the study of pregnancy, it was found that the risk of abortion significantly (p < 0.05) was more common in group II (9%) than in I-10 (28.6%). In group II, the course of pregnancy was complicated by preeclampsia in 8 (32%) of the subjects, while in group I patients, preeclampsia was diagnosed in 4 (11.4%). Vaginal birth occurred in 28 (82.9%) in I and in 17 (68%) of women in group II. When studying the complications of labor, it was found that the overwhelming majority diagnosed premature delivery of an amniotic fluid: in patients of the II group, this complication was significantly (P < 0.05) more often 5 (20%) than in I -2 (8%). Urgently cesarean was subjected to 8 patients (13.3% of the total number of operated), including Group I 3 (8.6%) and II - 5 (20%). In group I, in 3 (8.6%) patients the base for emergency delivery by cesarean section was uncomplicated (32%) of the subjects, while in group II patients, complications of placental insufficiency served as the indication, in one (4%) - labor was complicated by primary weakness of labor activity, in one (4%) - clinical narrow pelvis. In 2 patients (5.7% of the total number of operated) group I and in 4 patients (16% of the total number of operated patients) of the II group, the cesarean section was performed in routine (high risk of labor, endometriosis, incomplete uterus scar after cesarean section, relatively large fetal size with pelvis presentation). After anti-anemic therapy, the compensatory and protective capabilities of the fetus and the newborn improved, and this was reflected in a higher Aggar score. In newborns from mothers who received therapy from the second trimester, the Aggar score was 7.3 ± 1.4 points in the first minute of life, 7.7 ± 1.2 points in the fifth minute, while in newborns from mothers, received therapy from early pregnancy - at the first minute of life 7.8 ± 0.6 points, in the fifth minute 8.5 ± 0.7 points (p < 0.05). The incidence of newborn anemia in the I group was (1.3%) and in II - (5.3%). Conclusion: Thus, the implementation of WHO recommendations on the prevention and treatment of anemia at the onset of the first trimester of pregnancy should be considered a reserve. Medication correction of interruption fetoplacental homeostasis in combination with anti-anemic treatment by Maltofer from early pregnancy has reduced the frequency of obstetric and perinatal complications. A convincing criterion for the effectiveness of the proposed measures was a decrease in the neonatal morbidity by a factor of 1.5.

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Problem statement: Anemia, it would seem, has long been known, comprehensively studied disease, but nevertheless, resistant to any methods of treatment, and the number of complications caused by it cannot be compared to any extragenital disease (EGD). This is probably due to both the duration of the effect of the anemia
syndrome, especially the preceding pregnancy, on the fetoplacental system (FPS) that is being formed, and the universality of the inadequacy of the oxygen supply of all organs and systems of the woman, especially the uterus, placenta and feto. The aim of the study was to evaluate the effectiveness of anti-anemic therapy in the prevention of placental insufficiency in the second trimester of pregnancy. Methods: The study analyzed the course and outcome of the present pregnancy in 40 patients in the II trimester with a verified diagnosis of iron deficiency anemia (IDA) who received anti-anemic therapy (Maltofer) in combination with preparations for the correction of placental insufficiency in the II trimester of pregnancy. Results: Anti-anemic therapy provided a significant (p < 0.001) increase in the level of hemoglobin from 80 ± 1.6 g / l to 116.3 ± 1.9 g / l and erythrocytes - from 3.3 ± 0.4 1012 / l to 4.2 ± 0.3 1012 / l. There was a significant increase in the serum iron level (from 11.5 ± 1.5 μmol / l to 17.5 ± 1.3 μmol / l) and a significant increase in the level of ferritin, which is possible only at the lowest rate of hemoglobin growth. The increase in serum ferritin level tended to exceed the background of treatment from 32.6 ± 1.2 μg / ml to 34.5 ± 1.7 μg / ml. No less interesting was the study of placental proteins in the blood of pregnant women. When prescribing therapy from early pregnancy, there was a significant (p < 0.05) increase in TBG from 27.2 μg / ml to 68.5 μg / ml by 17-20 weeks. The dynamics of AMGF concentration changes in patients treated at an early age corresponded to those in uncomplicated pregnancy and if the AMGF values in this group did not reach the control values, they were significantly higher than in the representative group (40.1 g / ml and 36.5ng / ml, respectively, in the control group - 43.2ng / ml). As for PAMG, because of early treatment, a significant decrease in the level of this protein was observed in comparison with the representative group from 35ng / ml to 17.4g / ml by the beginning of the second trimester. Conclusion: A pathogenetically substantiated complex of measures in 17-20 weeks of gestation, including medication correction of fetoplacental homeostasis disorders combined with anti-anemia treatment, made it possible not only to normalize iron parameters, improve the quality of life of pregnant women, but also to compensate for the insufficiency of the placental bed and placenta.

P128-1069
INFLUENCE OF ATOSIBAN THERAPY ON MATERNAL SERUM ELECTROLYTES
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Objective: The safety of atosiban has been tested in various aspects. The drug is known to have potential effect on the water resorption of the mother. However, whether this side effect occurs in the mother, has not been demonstrated yet in previous studies. The objective of this study is to evaluate the effect of atosiban therapy on maternal serum electrolytes which reflect changes in fluid volume.
Methods: We retrospectively sampled data on 240 women hospitalized for preterm labor (24-35weeks’ gestation) in our centers between 2011 and 2016. All patients were subjected to tocology with atosiban. Combination of other tocolytic drugs was inevitable to control uterine contraction. Routine laboratory tests (Complete Blood Count, Blood Chemistry, Urine analysis) were performed twice every week. Data were analyzed using IBM SPSS statistics (version 20), considering p < 0.05 as significant. Results: We had 64 women treated with atosiban only, 16 treated with atosiban and ritodrine, 115 treated with atosiban and nifedipine, and 45 treated with atosiban, ritodrine, and nifedipine. In the multivariable logistic regression, the use of atosiban does not significantly change serum electrolytes level (Na, K, and Cl) (p =0.92, 0.74, and 0.93 respectively) and does not play any role in hemoglobin and hematocrit level changes, (p =0.12 and 0.41). Furthermore, concentration of urine was not influenced by the drug (p =0.60). Conclusions: We believe that the result of this study could provide more evidence on the safety of using atosiban tocolytic therapy in pregnancy with preterm labor.

P129-1256
BILATERAL PORT-SITE METASTASES FOLLOWING LAPAROSCOPY SURGERY FOR A STAGE IB1 ADENOCARCINOMA OF THE UTERINE CERVIX WITH NEGATIVE LYMPH NODE
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Background: Port-site metastasis following laparoscopy for endometrial and cervical cancer have been associated with the presence of regional lymph node metastasis or disseminated disease in the pelvis and lower extremity. We present a rare case of bilateral port-site metastases in a patient with stage IB1 adenocarcinoma of the cervix who was diagnosed with no evidence of spread beyond the primary tumor. Case: A 53-year-old woman with stage IB1 adenocarcinoma of the cervix was treated with laparoscopic radical hysterectomy, bilateral salpingo-oophorectomy, pelvic and para-aortic lymph node dissection. There was no clinical evidence of metastatic disease and final pathology revealed an endocervical adenocarcinoma confined to the cervix with negative surgical margins and lymph nodes. Eleven months later, she re-presented with a palpable soft tissue mass in abdominal wall underlying the site of the prior laparoscopic trocar port. A cutaneous metastasis at the port-site was diagnosed. Following diagnosis of the port-site metastasis, the patient was treated with concurrent chemoradiotheraphy. Conclusion: This case demonstrates the potential for port-site metastasis in patient who underwent laparoscopic surgery with negative surgical margins, negative lymph nodes, and absence of intrapelvic disease. All patients should be closely monitored for recurrent disease with long-term follow-up, including special attention to the port-sites.

P130-1385
PREGNANCY RATE ON BLASTOCYST VERSUS CLEAVAGE STAGE EMBRYO TRANSFER
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Problem: In Vitro Fertilization (IVF) is known as one of assisted reproductive methods that effectively addresses the problem of infertility. IVF fresh cycle pregnancy rate in Indonesia in age 35 years in 2013 was at 41.48%. It was still below the pregnancy rate of fresh IVF cycles at the same age worldwide in 2012, 46.6%.
are several factors that can affect the pregnancy rate of IVF cycles, one of which is the stage when the embryo is transferred. Based on previous studies, it was found that the blastocyst stage has a higher pregnancy rate than the cleavage stage. The purpose of this study was to improve IVF effectiveness.

Methods: The study was conducted using medical records from the Klinik Yasmin RSCM Kencana. Samples were divided into two groups, 120 patients in cleavage stage group and 120 patients in blastocyst stage group. The samples were selected using systematic randomization as a part of a historical cohort study.

Results: In the analysis, we found 20.8% proportion difference between the blastocyst stage group to the cleavage stage group (50.8% and 30.0% = 0.006). In the multivariate analysis, it was found that there were three confounding variables, endometrial thickness, endometriosis, and tubal factor, which significantly affected the pregnancy rate.

Conclusion: Blastocyst embryo transfer has a significantly higher pregnancy rate than cleavage embryo transfer.

P131-1402
SPONTANEOUS RIB FRACTURE IN PREGNANCY - CASE REPORT
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Problem statement: There are few cases in literature that describe spontaneous rib fractures in pregnancy. Since it is a rare condition, there is no recommended management during pregnancy and mostly includes individual approach. This condition can be challenging for obstetricians regarding the way of delivery and possible more trauma to skeletal part of pelvis during delivery.

We present a case of 31-year-old Caucasian secundiparous woman in week 34 of pregnancy who came to the gynecology where the specialist because she woke up with acute left costal pain. After examination, the ultrasound was made and showed 8th left rib fracture. Three days later after minimal mobilization, she experienced acute costal pain again at this time on the right side of thorax she came to Obsterical unit in our Clinic. Ultrasound confirmed 8th left rib fracture as well. In patient’s medical history there were no fractures. She had idiopathic hyperprolactinemia for at least two years without therapy. She had no headaches or vision problems and MRI of the head showed no pathology. There was no pathology in previous pregnancy, but patient reported sudden loss of four teeth in early postpartal period. There is no osteoporosis in family history. Due to the spontaneous bilateral rib fracture, laboratory test was done and showed normal calcium serum level - 2.22mmol/L and normal phosphorus level - 0.27mmol/L, but hypercalciuria - 8.7 mmol/24h was found. Patient’s 25-hydroxyvitamin D level was low - 43.3nmol/L and parathyroid hormone was 4.1 pmol/L which is a normal level. Examination and normal levels of thyroid-stimulating hormone and cortisol ruled out hyperthyroidism and Cushing’s syndrome, and diagnosis of osteoporosis in pregnancy was designated. Patient was treated with CaCO3 1 g per day and D3 drops 400 IU thrice a day until the end of pregnancy. She had spontaneous vaginal delivery. After that there were no more fractures in pregnancy, delivery or postpartum period.

Conclusion: Postpartal period teeth loss after first pregnancy could have been the first symptom of pregnancy induced calcium loss and should have been investigated during that time. Regardless to that if there is a pregnant patient with acute thoracic or spine pain, pregnancy associated osteoporosis should be suspected, especially if previous anamnestic data suggest the presence of risk factors. Immediate treatment is needed to avoid potential complications during the delivery.

P132-1538
CELL- FREE DNA TESTING: INFLUENCE ON THE COMBINED SCREENING FOR FETAL ANEUPLOIDIES IN THE FIRST TRIMESTER AND THE RATE OF INVASIVE PROCEDURES
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We present the results of prenatal cf-DNA testing in the period from 1.1.2013 until 30.6.2017 in a private cytogenetics clinic. In our study, all of 9426 pregnant women had NT screening. Among them, 358 had also prenatal cf-DNA testing. Results: The number of women having NT screening and adding cfDNA testing has increased over the last 4 years (2013: 39, 2014: 70, 2015: 48, 2016: 157). The percentage of women with cf-DNA testing among the ones with NT screening raised from 1.45 % in 2013 to 9.13 % in 2016 (2014: 2.85 %, 2015: 2.74 %). For women that are HR only due to their age (37 years or more), this percentage increased from 45.3 % in 2013 to 44.03 % in 2016. Among women that are HR for T21 due to both age and prior NT screening, 5.85 % decided to undergo cf-DNA testing in 2013 and 46.30 % in 2016. In 2016, 4.24 % of women younger than 37 years decided for cf-DNA testing regardless of low risk NT screening result for T21, whereas this percentage was equal to 0.58 % in 2013. Cf-DNA test after NT screening has changed women’s decision for adding biochemistry test as a part of traditional screening tool. The percentage of women with combined test among women with NT screening has remained around 30 % throughout the years. The main difference over the years has appeared among women older than 35 years. In the group of 35 – 37 years old women, this percentage decreased from 82.86 % in 2013 to 57.89 % in 2016. Among women of age 37 years or more with NT screening, 48.00 % had also biochemistry test in 2013 and 23.94 % decided for it in 2016. The average age of women with cf-DNA testing has been similar in the last 4 years (2013: 36.7 years, 2014: 36.5 years, 2015: 36.6 years and 2016: 36.2 years). In the period 2013 – 2016, half of our cf-DNA tests were performed in 2016. Out of total 157 women with cf-DNA tests in 2016, 84 (55.0 %) were of advanced maternal age (37 years or more), 36 (22.93 %) were HR for T21 based on prior screening, 59 (37.58 %) were HR regarding age but low risk according to prior screening, 62 (39.49 %) had low risk regarding age and prior screening. The number of invasive procedures among the ones with cf-DNA testing was 5.71 % in 2013, 5.30 % in 2014 and 4.99 % in 2015. However, this percentage decreased over the years in two age groups: for women of age 35 – 37 years it was 9.60 % in 2013 and 5.81 % in 2015; for women older than 37 years or more it was 37.24 % in 2013 compared to 30.58 % in 2015. We are still waiting for the data from year 2016, when our percentage of cf-DNA testing among the ones with NT was the highest. We expect further decrease in percentage of invasive procedures among the ones with NT screening. In general, cf-DNA testing for all aneuploidies yielded 100 % sensitivity (95 % CI: 63.06 % – 100 %) and 99.66 % specificity (95 % CI: 96.14 % – 99.99 %) with the positive predictive value of 88.89 % (95 % CI: 51.75 % – 99.72 %). Sensitivity and specificity for only T21 are 100 %.

Conclusions: Our results confirmed that prenatal cf-DNA testing represents highly accurate approach in advanced screening of most common aneuploidies. The number and percentage of tests has been increasing. The average age of women with cf-DNA testing remains similar throughout the years. The expected decline in number of invasive procedures among HR pregnant women due to their age and/or prior NT screening results is to be continued. However, the ultrasound evaluation of the fetus determines which further test or procedure will follow.

P133-1322
HYDRAMNIOIS IN SINGLETON PREGNANCIES AND PERINATAL OUTCOMES
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Problem statement: Hydramnios is defined as an excessive accumulation of amniotic fluid in pregnancy and it has been associated with increased risk of perinatal morbidity and mortality, including preterm delivery, aneuploidy, caesarean delivery, fetal anomalies, premature rupture of membranes (PROM), abnormal fetal presentation, cord prolapse and postpartum haemorrhage, and perinatal mortality. The earlier hydramnios occurs in pregnancy and the greater is the amount of fluid, the higher is the risk of perinatal morbidity and mortality. Many clinicians have viewed hydramnios as a prognostic factor of increased risk of pregnancy complications and have recommended an extensive evaluation of these pregnancies, including multiple comprehensive ultrasound examinations, repeat diabetes screening and amniocentesis for fetal karyotyping. There is a significant positive relation with maternal age, diabetes, fetal anomalies and fetal macrosomia. The aim of our study was to evaluate the association between idiopathic hydramnios and adverse perinatal and obstetric outcomes.

Methods: A retrospective cohort study was performed between 1 January 2007 and 31 December 2016 on 114 pregnant women with idiopathic polyhydramnios (study group) and 150 normal pregnant women with idiopathic polyhydramnios (control group). The study took place in the outpatient department of General Hospital of Chania. The inclusion criteria were singleton pregnancy, at least 20 weeks of gestation, fetus with no chromosomal and structural abnormalities, non-diabetic, TORCH screen negative and no Rhesus negative (Rh) sensitization. The exclusion criteria for the study were multiple
pregnancies, fetus with chromosomal and structural abnormalities, pre-existing or gestational diabetes, TORCH screen positive, autoimmune diseases or stress-related disorders. However, we found no significant difference on survival and growth. However, we found no significant difference on favorable inflammatory environment for endometriotic implants or stress-related disorders. Women with endometriosis were liable to have higher educational level and severe depression, anxiety or fibromyalgia. Women with endometriosis were more susceptible to second disease as chronic fatigue syndrome, multiple sclerosis, lupus, rheumatoid arthritis and other autoimmune inflammatory related disorders. Allergies, asthma and eczema has been also reported as more prevalent among endometriosis patients.

Problem statement: Endometriosis has been linked to emotional distress, the pathophysiology of this gynecological condition is not yet established and the contribution of emotional distress. Nevertheless, the pathophysiology of this gynecological condition is not yet established and the contribution of autoimmune diseases or stress-related disorders.

Conclusion: We observed a possible link between endometriosis and higher educational level and severe allergies. Stress can lead to an immune dysfunctions, producing a favorable inflammatory environment for endometriotic implants survival and growth. However, we found no significant difference on what concerns autoimmune diseases or stress-related disorders.

P134-1224
WOMEN’S CERVICAL HPV INFECTION IN RURAL GREECE
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Problem statement: It is established that human papillomavirus (HPV) infection is the main cause of cervical cancer. HPV are classified as high-risk (HR) or low-risk (LR) types depending on their carcinogenic potential. There is limited knowledge of HPV distribution in the general population of Greece, especially in the rural regions, knowledge that will help to develop national cervical cancer preventive strategies. We aimed to determine the overall and type-specific prevalence of cervical HPV infection and the association of such infection with cervical cytology abnormalities and sociodemographic characteristics among women living in rural Greece.

Methods: The study was conducted during January 2016 to June 2017 in the regional unit of Chania with a population of 160,000 residents. Nonpregnant women, age ≥13 years old, who were residing in the study area during the study period, were considered eligible. Basic demographic information, sociodemographic characteristics, medical history, smoking status, alcohol consumption, sexual and reproductive behavior, age at first sex, number of lifetime partners, history of sexually transmitted infections, and use of a condom was obtained at the time of the gynecological visit.

Results: Among women in whom a valid HPV result was obtained the median age was 40 years (range 13-75 years). Condom was the most common contraceptive method ever used (60.8%), while 29.4% did not use any contraceptive method. Of the HPV-18 positive women, 23.5% had a history of a previous HPV infection and 31.9% of them were sexually transmitted disease, 14.7% had never done a Pap test, while 68.8% had a Pap test during the last year. Overall, the HPV prevalence was 15.6%, 8.2% for high-risk and 7.4% for low-risk HPV types, and was similar between age groups. The five most common HR types were HPV-18 (3.2%), HPV-33 (1.9%), HPV-56 (1.4%), HPV-31 (1.1%), and HPV-16 (0.9%). Among LR types, HPV-11 was most common (4.1%) and 2.2% of women had infection with multiple HPV types. Among the women with normal cytology, the prevalence of HR-HPV (8.2%) and LR-HPV infection (8.1%) was similar. Among women with abnormal cytology, 8.9% had HR-HPV infection and 5.3% had LR-HPV infection. The proportion having abnormal cytology did not significantly differ between women with HR- and LR-HPV. HPV infection was associated with current smoking, formal education and multiple sexual partners.

Conclusion: The prevalence of HPV in women attending our clinic is high showing the importance of the early screening as well as the necessity of appropriate measures. The number of sexual partners and smoke consumption were the most significant risk factors for HPV infection, followed by young age and lower level of education; the vaccine against the most prevalent and high-risk HPV subtypes is in use, that might help to reduce the risk of infection and cervical cancer. However, larger epidemiological studies in different regions of our country are needed to report the accurate prevalence of HPV infection.

P135-1295
SERUM INHIBIN-B LEVEL DURING OVUM PICK-UP AS A BIOCHEMICAL PREDICTOR FOR OOCYTE QUALITY IN IVF CYCLE
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Background: The outcome of an in vitro fertilization (IVF) cycle will be determined by several factors including oocyte quality. Inhibin-B has a predicting value for follicular development and a predictor of embryo quality. The objective of this study was to investigate the association between serum inhibin-B level with the number of picked-up oocyte, mature oocyte, and fertilization rate in IVF cycle and to determine their cut-off levels.

Materials and methods: An analytic cross-sectional study was conducted from September 2013 until August 2014 at Harapan Kita Mother and Child-dren Hospital. A total of 38 infertile women undergoing controlled ovarian stimulation for IVF cycles were measured for serum inhibin-B levels at basal, trigger, and ovum pick-up (OPU) times. The receiver operating characteristic analysis (ROC curve) was used to determined the cut-off level of serum inhibin-B to predict the number of picked-up oocyte (>3 oocytes), mature oocyte (>3 oocytes), and fertilization rate (>70%).

Results: The median level of inhibin-B during OPU was 196.31 pg/ml and it was significantly correlated with the number of picked-up oocyte (p=0.017), mature oocyte (p=0.005), and fertilization rate (p=0.021). Serum inhibin-B level during OPU ≥ 131.17 pg/ml was moderately accurate to predict the number of picked up oocyte of more than 3 oocytes (AUC 0.75, sensitivity 81.5%, specificity 72.7%) and the number of mature oocyte of more than 3 oocytes (AUC 0.77, sensitivity 84.0%, specificity 69.2%). Serum inhibin-B level during OPU ≥ 86.84 pg/ml was also moderately accurate to predict fertilization rate >70% (AUC 0.74, sensitivity 86.5%, specificity 63.6%).

Conclusions: Serum inhibin-B level during OPU was associated with the number of picked-up oocyte, mature oocyte, and fertilization rate in IVF cycle. The cut-off levels were moderately accurate to predict several parameters of oocyte quality.

P136-1268
IMPACT OF IMMUNE DYSFUNCTION AND STRESS RELATED DISORDERS IN ENDOMETRIOSIS – A CASE-CONTROL STUDY
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Background: Endometriosis has been linked to immune dysfunctions in women with endometriosis are at increased risk for second disease as chronic fatigue syndrome, multiple sclerosis, lupus, rheumatoid arthritis and other autoimmune inflammatory related disorders. Allergies, asthma and eczema has been also reported as more prevalent among endometriosis patients.

Methods: A case-control study of 418 medical files of patients with surgical-diagnosed endometriosis treated and followed at Gynaecology Department of Coimbra University Hospital Center was designed to study the prevalence of autoimmune diseases, stress-related disorders, specific allergies and educational level. Control group included 300 age-stratified healthy women participating in a family planning programme. Statistical analysis was performed using SPSS 20.0 (p<0.05).

Results: The average age at the time of endometriosis diagnosis was 37.2±8.1 years and body mass index was lower among endometriosis group (p<0.001). Clinical reports included 44 (10.7%) endometriosis patients that reported auto-immune diseases, 53 (12.9%) with severe allergies and 90 (21.9%) suffering from depression, anxiety or fibromyalgia. Women with endometriosis were significantly more likely to have higher educational level and severe allergies (p<0.001) when compared to control group but no significant differences were observed when comparing auto-immune diseases or stress-related disorders.

Conclusion: We observed a possible link between endometriosis and higher educational level and severe allergies. Stress can lead to an immune dysfunctions, producing a favorable inflammatory environment for endometriotic implants survival and growth. However, we found no significant difference on what concerns autoimmune diseases or stress-related disorders.
Further studies should be designed to confirm these results.

P137-1260

OVARIAN ENDOMETRIOMAS AND PERITONEAL ENDOMETRIOSIS – DIFFERENT CLINICAL IMPLICATIONS OF THE DISEASE

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Problem statement: Isolated ovarian endometriomas and peritoneal endometriotic disease are believed to be different expressions of the same pathogenic entity. Nevertheless, clinical signs and symptoms, clinical and imagologic diagnosis, and treatment options usually require individualization per two main consequent disorders: pain severity and infertility. Determining clinical features of patients with these types of disease can be useful in understanding different outcomes between ovarian endometriomas and peritoneal endometriosis. Methods: A cross-sectional study including 383 patients submitted to pelvic surgery and corresponding histologic diagnosis of endometriosis was performed at the Gynecology Department of Coimbra University Hospital Center to analyze and compare clinical parameters between two groups: patients with isolated ovarian endometriomas and patients with diffuse peritoneal endometriosis. Statistical analysis was performed using SPSS 20.0 (p<0.05). Results: The average age of diagnosis in both groups was 36.8±8.0 years and pain symptoms were common among all endometriosis patients as 64% referred dysmenorrhea, 56% chronic pelvic pain and 31% dyspareunia. Incidence of isolated ovarian endometriomas was 22% (78 patients) and remaining 78% (281 patients) presented peritoneal diffuse endometriosis with or without endometriomas. Clinical symptoms, specifically on what concerns associated pain complaints, were similar between both groups (p=ns). Incidence of infertility was significantly higher in peritoneal endometriosis group (p=0.001), unlike CA-125 serum values, which were significantly higher in isolated ovarian endometriomas group (p=0.01). There was no significant difference between both groups on what concerns age at diagnosis, body mass index, age at menarche, menstrual pattern (cycle length and duration of flow), obstetric or abdominal surgery personal background. Conclusion: Isolated ovarian endometriomas and peritoneal endometriosis were similarly associated to pain complaints, most importantly chronic pelvic pain and acute cyclic pain. Despite ovarian endometriomas label the disease to advanced stages, peritoneal endometriosis was related to more severe complaints, regarding infertility. Significant elevated CA-125 levels in isolated ovarian endometriomas compared to peritoneal endometriosis is an interesting observation regarding endometriotic and clear cell ovarian cancer carcinogenesis.

P138-1359

FINAL OOCYTE MATURATION IN NORMORESPONDER PATIENTS UNDERGOING INTRACYTOPLASMIC SPERM INJECTION: GnRH AGONIST VS. DUAL VS. RHCG

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In this retrospective cohort study data of normal responder patients who were treated by antagonist co-treated ICSI at a university-based infertility clinic between January 2015 and December 2016 were reviewed (n=200). The first study group consisted of cycles triggered by GnRH agonist alone. The second study group consisted of cycles triggered by both GnRH agonist and recombinant hCG (dual trigger). And the control group consisted of cycles triggered by recombinant hCG alone. There were 56 cycles in the GnRH agonist trigger group, 59 patients in the dual trigger group, and 85 patients in the hCG trigger group. The main outcome parameter was ongoing pregnancy rate. Demographic parameters, cycle characteristics and cycle outcome were compared between the groups. Continuous variables were analysed independently by One-way ANOVA test and categorical variables were compared by using Fisher’s exact test. Results: There were no statistically significant differences between the study and control groups regarding age, body mass index, duration of infertility, etiology of infertility, and baseline hormonal status. Regarding the cycle characteristics total dose of gonadotropins, duration of ovulation stimulation, maximum estradiol levels, number of oocytes retrieved, MII and fertilization rates were comparable between the groups. The number of transferred embryos were 1.1±0.7, 1.2±0.6, and 1.2±0.5, respectively. The total number of good quality embryos were 3.2±2.9 in GnRH agonist trigger, 4.5±3.2 in dual trigger, and 2.0±2.1 in hCG trigger (P=0.014). The significance stems from the difference between dual trigger and hCG trigger (P=0.011). The cycle cancellation rates were 17.9% for dual trigger, and 28.2% for hCG trigger (P=0.126). Conclusion: Our results suggest that GnRH agonist or dual or hCG triggering have similar outcome in terms of ongoing pregnancy in normoresponder patients. However, dual trigger results in more good quality embryos and GnRH agonisttrigger could be more useful in hCG nonresponders. Further randomized controlled studies are needed to confirm our findings.
Figure 1. Expression patterns of M-CSF, M-CSF-R and NPR2 in the ovaries of eCG-stimulated mice. Localization of M-CSF (A and B), M-CSF-R (C and D) and NPR2 (E and F) was analyzed using immunohistochemistry. White arrows, periantral mural GCs. Scale bar, 100 μm

Figure 2. Gonadotropin control of M-CSF, M-CSF-R and NPR2 expression in ovaries in vivo. (A) Localization of M-CSF, M-CSF-R and NPR2 in ovarian follicles shown with immunohistochemistry. Red box represents the time point of 48 h after eCG treatment. Scale bars, 100 μm. (B) Mean optical density of ovarian slides. *, P < 0.05; ▲, P < 0.01

Figure 3. Effect of hCG on NPR2 mRNA expression in POFs. (A) The kinetics of hCG-induced NPR2 mRNA levels in POFs. *, P < 0.05

Figure 4. Effect of M-CSF on NPR2 mRNA expression and oocyte maturation. COCs isolated from eCG-stimulated mice were cultured in MEM-α in the existence of 30 nM NPPC (control) added with 200ng/ml M-CSF and/or 1μmol/L GW2580 for 2 h. (A) Effect of GW2580 on M-CSF-induced NPR2 mRNA levels in cumulus cells after 2 h of culture. *, P < 0.05

Post-Cesarean Pain Associated With Skin Incision: Vertical Versus Pfannenstiel

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Objective: The purpose of this study was to determine post-cesarean pain in elective vertical cesarean delivery compared to Pfannenstiel incision. Material and Methods: This was the secondary data analysis from the primary study investigating the additional post-cesarean analgesia between ketorolac and meperidine. Parturients who had scheduled for elective cesarean delivery were recruited. All parturients underwent elective cesarean section via spinal anesthesia. Visual analogue scale (VAS) was used to evaluate postoperative pain at 3, 6, 12 and 24 hours. Rescue analgesia using either ketorolac or meperidine was applied when VAS was equal or more than 6. Type of skin incision was reanalyzed and compared to other parameters. Results: A total of 580 pregnant women were recruited in this study. There were 276 and 304 cases in vertical and Pfannenstiel groups, respectively. Both groups showed no statistical significant among body mass index, parity, gestation age, estimated blood loss, birth weight, history of prior cesarean delivery and underlying diseases. In primary cesarean delivery, VAS of vertical group was higher than Pfannenstiel group at 3, 12 and 24 hours after surgery. In repeated cesarean delivery, VAS of Pfannenstiel group was higher than vertical group at 6 and 12 hours after operation. There was no side effect, i.e., nausea, vomiting, itching, respiratory depression and allergic reactions, in this study. Conclusion: The postoperative pain after elective cesarean delivery of both vertical and Pfannenstiel incision were comparable. Keyword: cesarean section, vertical incision, Pfannenstiel incision, pain

Decreased Pregnancy Rate After In-Vitro Fertilization in HIV-Infected Women

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Secondary infertility (76.3% and 35.7%; p=0.008). The duration of HIV-infection was 10 years (interquartile range 6 -13 years); most of the patients had the third subclinical stage of the disease (68.4%). The patients with stages 4a (23.6%), 4b (5.3%) or 4c (26.6%) were in the remission period of the disease. All females were receiving combination ARV therapy, including 37 patients receiving NRTI in combination with PI and one patient was receiving NNRTI + NRTI. Median duration of therapy was 4 years (2 - 6.2 years). Viral load before initiation of the IVF program was undetectable in 100% cases. Median CD4+ count was 625 (IQR: 406 -815). The patients in the main and control group were comparable in respect of duration and the factor of infertility - both groups had tubal-uterine factor as the most prevailing cause. Lower frequency of clinical pregnancy was revealed in HIV-infected women both during ART (13.8% vs 40.4%; p=0.014) and cryo-cycles (10.1±0.6; р=0.003), zygotes (5.88±0.7 vs 8.4±0.001; р=0.001) and oocytes (2.68±0.5 vs 4.4±0.4; 0.009) were recovered from HIV-infected patients compared to HIV-seronegative women. The duration of HIV-infection was 10 years (interquartile range 6 - 13 years); most of the patients had the third subclinical stage of the disease (68.4%). The patients with stages 4a (23.6%), 4b (5.3%) or 4c (26.6%) were in the remission period of the disease.

The goal of the study: The goal of the study was to evaluate clinical and laboratory characteristics and efficacy of ART in female HIV-infected patients. Materials and methods: Thirty-eight HIV-infected female patients (main group) and 56 HIV-seronegative women (control group) were enrolled into a prospective case-control study. Seventy-four in vitro fertilization (IVF) cycles, including 44 treatment cycles and 30 cryo-cycles were conducted in the main group. The respective numbers of cycles in the control group were 59 and 30. Stimulation of superovulation was performed per long IVF protocols and GnRH-antagonist-based protocols using recombinant FSH and hMG. While preparing the endometrium in cyrcycles, natural estrogen- and micronized progesterone-containing medications were used. The infected status of the patients was assessed based on the data on the disease stage, viral load, CD4+ count and the duration of ARV therapy. Results of the study: The patients in both groups were comparable in respect of age (median age - 34 and 32 years; p=0.160). The duration of HIV-infection was 10 years (interquartile range 6 -13 years); most of the patients had the third subclinical stage of the disease (68.4%). The patients with stages 4a (23.6%), 4b (5.3%) or 4c (26.6%) were in the remission period of the disease. All females were receiving combination ARV therapy, including 37 patients receiving NRTI in combination with PI and one patient was receiving NNRTI + NRTI. Median duration of therapy was 4 years (2 - 6.2 years). Viral load before initiation of the IVF program was undetectable in 100% cases. Median CD4+ count was 625 (IQR: 406 -815). The patients in the main and control group were comparable in respect of duration and the factor of infertility - both groups had tubal-uterine factor as the most prevailing cause. Lower frequency of clinical pregnancy was revealed in HIV-infected women both during ART (13.8% vs 40.4%; p=0.014) and cryo-cycles (10.1±0.6; р=0.003), zygotes (5.88±0.7 vs 8.4±0.001; р=0.001) and oocytes (2.68±0.5 vs 4.4±0.4; 0.009) were recovered from HIV-infected patients compared to HIV-seronegative women. The duration of HIV-infection was 10 years (interquartile range 6 - 13 years); most of the patients had the third subclinical stage of the disease (68.4%). The patients with stages 4a (23.6%), 4b (5.3%) or 4c (26.6%) were in the remission period of the disease.

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P142-1422
RECURRENT GESTATIONAL HYPERTRIGLYCERIDEMIA INDUCED PANCREATITIS IN PREGNANCY
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Problem statement: Gestational hypertriglyceridemia is a rare but potentially serious condition in pregnancy. It can lead to acute pancreatitis with high maternal and fetal morbidity and mortality. It is associated with preterm delivery and has a high recurrence rate in subsequent pregnancies. Methods: We present a case of a patient with recurrent gestational hypertriglyceridemia leading to acute pancreatitis in pregnancy. We also performed a literature review, establishing current management strategies in index and subsequent pregnancies to minimize maternal and fetal complications. Results: The data on efficacy and safety of common treatment modalities in the non-pregnant patient is scarce in the pregnant population. Most of the current recommendations are based on observational data from small case series or case reports. Conclusion: Due to the rarity of the above condition, no established treatment protocols are available. Several different approaches have been postulated by different groups. Our review aims to sumrise these strategies to guide clinicians in their management of gestational hypertriglyceridemia and their subsequent pregnancies.
pregnancy (control group). The parameters of maternal hemodynamics were recorded on 1.3, 5, 9, 14-day postpartum period, as well as after 2, 4 and 6 months. Indicators of the control group compared with the hemodynamic parameters in nonpregnant patients of reproductive age without somatic diseases (30 women). The following methods were used: echocardiography: end-systolic volume (ESV), end-diastolic (EDV), stroke volume (SV), cardiac output (CO), stroke index (SI) and cardiac index (CI), mean velocity of circumferential fiber shortening (MVF), mean blood pressure (MBP) and systemic vascular resistance (SVR). Blood flow in renal and carotid arteries as well as their branches, we evaluate using Doppler blood flow calculating resistance index (RI) and the pulsation index (PI).

Results: After uncomplicated pregnancy on the third day we observed increase in the cardiac parameters (SV, CO, SI, CI) and the simultaneous decrease in SVR demonstrated by reduction in vascular resistance in carotid, ophthalmic and renal arteries as compared to non-pregnant patients (P<0.05). All indicators returned to normal values by the end of the postpartum period. After PE and eclampsia on 1-3 days after labor indicators of cardiac hemodynamics were significantly lower, SVR and the cerebral and renal vessels resistance was significantly higher (p>0.05) than after uncomplicated delivery. Recovery rates depended on the severity of hypertensive disorders. The longest increase in vascular resistance was in the ophthalmic artery and arteries of the renal parenchyma. After uncomplicated pregnancy on the third day we observed increase in the cardiac parameters (SV, CO, SI, CI) and the simultaneous decrease in SVR demonstrated by reduction in vascular resistance in carotid, ophthalmic and renal arteries as compared to non-pregnant patients (P<0.05).

Conclusion: The maternal hemodynamics of the puerperas whose pregnancies were complicated by PE are characterized by an increased in the indices of peripheral vascular resistance. The degree of deviation in the parameters of cardiac hemodynamics and vascular resistance depended on the severity of hypertensive complications of pregnancy. Patients after PE/E are at higher risk of long-term cardiovascular disease and require cardiological follow up and tight control of blood pressure.

When planning a subsequent pregnancy, we recommend assessing severity of hypertensive complications of pregnancy. Patients after complicated by PE and E is characterized by impaired contractility of the myocardium and an increased in the indices of peripheral vascular resistance. The duration of gestation in the parameters of maternal hemodynamics and vascular resistance depended on the severity of hypertensive disorders. The longest increase in vascular resistance was in the ophthalmic artery and arteries of the renal parenchyma. After uncomplicated pregnancy on the third day we observed increase in the cardiac parameters (SV, CO, SI, CI) and the simultaneous decrease in SVR demonstrated by reduction in vascular resistance in carotid, ophthalmic and renal arteries as compared to non-pregnant patients (P<0.05). All indicators returned to normal values by the end of the postpartum period. After PE and eclampsia on 1-3 days after labor indicators of cardiac hemodynamics were significantly lower, SVR and the cerebral and renal vessels resistance was significantly higher (p>0.05) than after uncomplicated delivery. Recovery rates depended on the severity of hypertensive disorders. The longest increase in vascular resistance was in the ophthalmic artery and arteries of the renal parenchyma. After uncomplicated pregnancy on the third day we observed increase in the cardiac parameters (SV, CO, SI, CI) and the simultaneous decrease in SVR demonstrated by reduction in vascular resistance in carotid, ophthalmic and renal arteries as compared to non-pregnant patients (P<0.05).

Conclusion: The maternal hemodynamics of the puerperas whose pregnancies were complicated by PE are characterized by an increased in the indices of peripheral vascular resistance. The degree of deviation in the parameters of cardiac hemodynamics and vascular resistance depended on the severity of hypertensive complications of pregnancy. Patients after PE/E are at higher risk of long-term cardiovascular disease and require cardiological follow up and tight control of blood pressure. The drugs of choice for correcting the content of vitamins, trace elements are folate (400 mg), docosahexanoic acid (200 mg) and vitamin E (12 mg). During the, results of evaluation, folate should be prescribed at 400 mg, from 13 weeks - folic acid and docosahexanoic acid. Women with high levels of cyanocobalamin should be prescribed folic acid, vitamin D, o-tocopherol, potassium iodide, omega-3 for 2-3 months before pregnancy.

P145-1388
ROLE OF HYSSTEROSCOPY IN EVALUATION OF INTRAUTERINE PATHOLOGY
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Problem statement: Hysteroscopy is the gold standard for evaluation of uterine cavity. It can be performed either as office setting or as day care procedure under general anaesthesia. The aim of this study was to evaluate the role of hysteroscopy in diagnosis intrauterine adhesions (adhesions, polyps, endometritis, congenital uterine anomalies, fibroids etc.) of female infertility.

Methods: The study was conducted on 134 infertility patients from January 2016 to January 2017. Preoperative diagnosis of intrauterine pathology was established by ultrasonography, hysterosalpingography, magnetic resonance imaging. In all cases, we performed hysteroscopy in the follicular phase of the menstrual cycle then we analyzed the results of the two methods.

We investigated patients between 22 and 44 years old. The mean age of women was 31.6 ± 6.1 years. 48 (34.3%) women consulted for primary infertility and 88 (65.7%) had secondary infertility. The mean duration of infertility was 5.2 ± 3.6 years. There was no intraoperative or postoperative complication. In 32 (23.3%) cases the hysteroscopic view and anatomicopathological examination was normal. In other 102 (76.1%) cases by hysteroscopy was diagnosed different intrauterine pathology as follow: polyps – 56 (41.8%) cases, congenital uterine anomalies – 19 (14.2%) cases, fibroids – 14 (10.5%), adhesions – 8 (6.0%). In 7 (5.2%) women were diagnosed endometriosis certified by anatomicopathological examination in and 7 (5.2%) patients were discrepancy with menstrual cycle phase. In 23 (17.2%) cases more than one find in the same patient was diagnosed. Hysteroscopy is a safe and an effective method in diagnostic and treatment of intrauterine pathology in infertility women. That hysteroscopy can identify diseases that aren’t diagnosed by ultrasonography and hysterosalpingography.

P147-1533
UNEXPECTED FINDING DURING BREAST CANCER STAGING
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Breast cancer is the most frequent malignancy diagnosed in females. After diagnosis, staging is essential to determine the extent of the disease and adjust the therapeutic approach. We present a case of advanced hematologic cancer, diagnosed incidentally during the staging of breast carcinoma. A 64-year-old multiparous female presented with...
an abnormal finding on a routine mammogram - a supra areolar nodule in the right breast, heterogeneous and poorly defined, with approximately 20 mm diameter, with kH7 of 30% of the nuclei. A fine needle aspirate was performed, which revealed the presence of invasive ductal breast carcinoma, highly differentiated, with positive estrogen, progesterone and HER2 receptors, with ki67 of 30%. A breast MRI and thoracoabdominal (TA) CT revealed an abdominal mass, with thin walls, contiguous to the anterior portion of the aortic bifurcation, with minimal abnormal uptake in the right kidney and right femur and extensive diaphyseal uptake in the left tibia. It was decided to perform pelvic MRI and PET-CT with FDG-F18. The former confirmed the presence of a suspicious lombo aortic mass, and the latter revealed a metabolically active abdominal lesion and mediullary infiltration of the left tibia, both imposing pathologic examination. Due to the close anatomic relation to vascular structures, Angio-CT of the tibia was performed, which revealed a nodular retropitoneal formation with mild peripheral enhancement, anterior and inferior to the aortic bifurcation, with no signs of connection to the vascular lumen. The case was discussed within a multidisciplinary team and it was decided to perform diagnostic laparotomy, with biopsy of the abdominal mass and, at the same time, biopsy of the tibia. Histopathologic examination revealed that both lesions corresponded to diffuse follicular Non-Hodgkin B cell lymphoma, grade 3A. After restaging the breast cancer, tumpectomy with sentinel lymph node biopsy was performed (pT2 pN1 (1/4) M0 ER 40% PR 5-10% HER2+ KI67 30%). After surgery, the patient started chemotherapy with R-CHOP for both the lymphoma and adjuvant for breast cancer.

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Primary dysmenorrhea is defined as cramping pain during menstruation without any pelvic pathology, causing the restriction of daily activities. Nonsteroidal anti-inflammatory drugs (NSAIDs) and oral contraceptives are recommended as conventional treatments. However, with these medications, some patients could not gain pain reduction and others experience side effects such as nausea, dyspepsia, or vaginal bleeding. Acupuncture has been widely used to alleviate diverse pains. Many clinical trials were conducted to show its efficacy on menstrual pain, but previous reported systematic reviews (SRs) concluded the conflicting results of the efficacy. Therefore, we aimed to evaluate the current evidence regarding the efficacy and safety of acupuncture on primary dysmenorrhea. 

**Methods:** We searched the following 10 databases for relevant articles published before November 2016: MEDLINE, EMBASE, CENTRAL, Allied and Complementary Medicine Database (AMED), three Chinese databases, two Korean databases, and one Japanese database. Our study included randomized controlled trials (RCTs) that measured menstrual pain intensity and its associated symptoms. The intervention groups were received all types of acupuncture that penetrate skin using needle insertion, and the control groups were no treatment, usual care, placebo acupuncture, and oral medications. Risk of bias in each article was assessed per Cochrane risk of bias tool for RCTs. For the statistical pooling, the risk ratio (RR), mean differences (MD) or standardized mean differences (SMD) was calculated with 95% confidence intervals (CIs) using the Review Manager software (RevMan v5.3).

**Results:** This review included 35 RCTs; the meta-analysis included 24 RCTs. Most studies showed low or unclear risk of biases. After pooling, manual acupuncture (MA) was more effective at reducing menstrual pain, compared to the control groups receiving no treatment (SMD = -0.10, 95% CI [-0.39, -0.14], Fig 1(A)), or NSAIDs (SMD = 0.47, 95% CI [0.20, 0.76]). Electro-acupuncture was more effective at reducing pain, compared to no treatment and placebo acupuncture (MD = -3.57, 95% CI [-7.05, -0.10], Fig. 1(B)). These studies showed that the efficacy of acupuncture was maintained after a short-term follow-up period. However, the efficacy of MA compared to a placebo was not convincing. Despite limitations due to the moderate quality and methodological restrictions of the included studies, acupuncture might be used as an effective and safe treatment for females with primary dysmenorrhea.

**Conclusion:** The results of this study suggest that acupuncture might reduce menstrual pain and associated symptoms more effectively compared to no treatment or NSAIDs, and the efficacy was maintained during a short-term follow-up period. However, the efficacy of MA compared to a placebo was not convincing. Despite limitations due to the moderate quality and methodological restrictions of the included studies, acupuncture might be used as an effective and safe treatment for females with primary dysmenorrhea.

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**P152-1185**

**THE EFFECT OF TRANSPANTATION ROUTES ON THE EFFICIENCY OF HUMAN UMBILICAL CORD STEM CELLS IN THE TREATMENT OF STREPTOZOTOCIN-INDUCED GESTATIONAL DIABETES MELLITUS IN RATS**

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Gestational diabetes mellitus (GDM) causes harm to both the mother and fetus. Although transplantation of human umbilical cord mesenchymal stem cells (HUMSCs) is an ideal therapy for GDM, there is no confirmation on the ideal transplant routes. Here, streptozotocin (STZ)-induced GDM rats were transplanted with HUMSCs by different routes: single or multiple tail vein injection, liver parenchyma and renal capsule transplants. These were compared to positive controls (STZ-induced, untreated) and negative controls (non-induced, untreated) to determine the effect of the transplant on the control of GDM. We isolated and cultured the HUMSCs for transplantation and original activity was demonstrated by immunophenotypic characterization, the potency of differentiation and flow. The blood glucose level and body weight of rats in each group were determined, and the number, weight, and body weight of offspring were evaluated. Based on results, we concluded that transplanting HUMSCs could effectively alleviate the symptoms of elevated blood glucose and weight loss and improve the body weight and survival rate of offspring. Continuous injections of HUMSCs were required to consistently decrease the blood glucose of diabetes mellitus (DM) and GDM rats. Transplanting HUMSCs into the liver gave a similar effect on controlling blood glucose and compensating body weight. HUMSC therapy increased the number and bodyweight of offspring and improved their activity. In summary, this study has enabled progress toward determining the optimal route for GDM therapy.
excitement were frequently experienced during vaginal examination. Some women felt embarrassed when examined by a male doctor, but the experience was positive and the approach was generally found to be more important than gender. The women were wanted a doctor who is an expert or experienced, kind, clean, friendly, informative, relating. The women wanted to be supported during the examination by nurses and midwife. Almost all women were expected a nurse or midwife who has a humanistic perspective such as smilingly, warm, gentle, empathic, non-judgmental, mother like. Conclusion: Vaginal examination does not only perceived with women. The health professionals should be sensitive towards the needs of women in labour, including the provision of explanations and information regarding vaginal examinations.

P154-1235
LONG-TERM COSMETIC OUTCOMES OF THE POSTOPERATIVE WOUND AFTER LAPAROSCOPY FOR ADNEXAL SURGERY: OVER TWO-PORT VS. LAPAROSCOPY INCLUDING CONVENTIONAL LAPAROSCOPY VS. SINGLE-PORT LAPAROSCOPY

Sang Wook Yi, Da Hye Ju, Sang Soo Lee, Woo Seok Sohn
Obstetrics and Gynecology, Gangneung Asan Hospital, University of Ulsan College of Medicine, Gangneung-si, South Korea

Problem statement: Recently, transumbilical, single-incision laparoscopy (known as single-port laparoscopy) has been used in many types of operations. Although cosmetic superiority is widely stated as an advantage of single-port laparoscopy, few studies have examined its cosmetic outcomes, especially regarding long-term outcomes and patient satisfaction. We sought to compare patients’ cosmetic satisfaction more than 6 months after over two-port laparoscopy, including conventional laparoscopy, vs. single-port laparoscopy. Methods: One hundred ten patients who underwent adnexal surgery performed by a single surgeon at a single institution between March 2005 and February 2017 were enrolled. After 6 months, post-laparoscopy, the patients were asked to complete the Patient Scar Assessment Scale (PSAS), a validated tool for evaluating linear scars, and the Ultimate Question (UQ), which correlates with the patient’s overall satisfaction. We evaluated the surgical scar using the Observer Scar Assessment Scale, which includes the Umbilical Scar Overall Shape Assessment Scale (USOSAS) and the Vancouver Scar Scale (VSS). A two-tailed Student’s t-test was used to analyze the differences between the study groups. P values 0.05 were considered significant. Results: The mean age and parity of the over two-port laparoscopy group vs. the single-port laparoscopy group were 37.2±9.3 years vs. 35.0±12.2 years and 1.1±1.0 vs. 1.0±1.1, respectively. Significantly more histories of preoperative laparotomy and postoperative hemoglobin changes were observed in the over two-port laparoscopy group than in the single-port laparoscopy group. There were no significant differences in the PSAS and UQ among the enrolled patients. The USOSAS and VSS showed no significant differences between the over two-port laparoscopy group and the single-port laparoscopy group. Conclusion: The over two-port laparoscopy group had significantly previous laparotomies, and early laparotomy patients had a significant change in preoperative hemoglobin changes than the single-port laparoscopy group. However, there was no significant difference in patient cosmetic satisfaction between the over two-port laparoscopy including conventional laparoscopy group and the single-port laparoscopy group.

P155-1563
THE IMPORTANCE OF MOTHER-INFANT ATTACHMENT

Mine Yilmaz Kocak
Health Sciences Faculty Department of Midwifery, Selcuk University, Konya, Turkey

Attachment is an emotional connection against another private person to an individual. Attachment theory explains the cognitive, emotional and behavioral relationships that develop trust between the primary caregiver and the child. The emotional connection of the mother with the baby is an effective and unique relationship that starts with pregnancy, increases with fetal movements, rises at birth, and occurs in the first year of postpartum life. The main point in mother-infant attachment is that the baby’s is based on experiencing persistent relationship in a comfortable, warm, friendly and safe environment and eliminating of their physical and mental needs. Bowlby’s attachment theory posits focuses on in the early period maternal attachment to the baby due to the need for biological trust whether the mother is available if the baby needs it, the baby’s reaction and how their behavior is interpreted by the baby. This theory suggests that attachment behavior during infancy is an important function in shaping and sustaining the future life of the individual and affects the relationship with the other people are effective in the development of trust. These feelings of attachment help the mother to show love and compassion to her baby, to protect and nurture the baby, to interact with the baby, and to be sensitive to the needs of the baby. In other words, it is an important component in terms of positive adaptation and motherhood. While attachment to the needs of the baby is met, the person looking at the baby does not only provide happiness and satisfaction from these actions, this is a bilateral relationship with this aspect. Considering the studies that examine the factors affecting the mother-infant attachment, the level of income, social support, morbidity, psychiatric disorders, planning of pregnancy, readiness to get pregnant, counting after the movements, ultrasonography and baby screening, healthy pregnancy progress, the need for maternal age, parity, mother’s talking with the baby, touching her, the weight of the new nature, need for newborn intensive care, preparedness after birth and birth, uneventful delivery, has been reported to be effective on. It has been reported that inadequate attachment and negative maternal behaviors are associated with postpartum anxiety and depression, adversely affecting the baby’s advanced life, and increased risk of physical and mental illness. Because mother-infant interaction affects the child’s development and whole life, important responsibilities for midwife/nurses pre natal, parturient and postnatal. Midwives/nurses should assist in initiating and maintaining the mother-infant attachment process with a professional approach. It is important to identify appropriate mothers who are at risk of undernutrition during pregnancy and to have appropriate midwifery/nursing interventions to prepare the woman for the mother. Post-natal maternal and neonatal attachment indications should be assessed. To be able to establish the attachment, the health personnel should help their mother’s concerns about the birth and help her perceive the baby by promoting maternal behavior. In this period, the mother should be absolutely supported, it is important to make good observation and evaluation and to add the mother to the care of the baby. Keywords: Attachment, mother-infant attachment, maternal attachment.

P156-1346
NEUROHUMORAL FACTORS IN PREDICTING THE OUTCOMES OF LATE PRETERM BIRTHS

N. Zharkin*, Yu. Shaitlova, S. Fedorenko
Volgograd State Medical University, Russia
N. Zharkin
Obstetrics and Gynecology, Prof., Volgograd, Russia

Problem statement: Preterm birth rates have been reported to range from 5 to 9% in some developed countries. A recent rise in preterm birth rates has largely contributed to the increasing late preterm birth rate, defined as a preterm birth between 34 to 36 weeks gestation and accounting for 50% of all preterm births. Premature rupture of the membranes (referred to as PROM) is the leading cause of the onset of labour in preterm birth. Finding factors that could accurately predict PROM presents a major challenge. Objective: To assess the reaction of the autonomic nervous system as the cause of late preterm birth and PROM. Methods: In a prospective study, we examined 98 pregnant women of child-bearing age with late preterm birth and PROM (study group). The study group was subdivided into two subgroups – one which included patients with “mature” cervix (n=52) and the other included patients with “immature” cervix (n=46). The comparison group included 68 late preterm delivery cases with term PROM. The control group was made up of 30 patients with term PROM who delivered at term. We examined the birth canals of the study participants to evaluate the autonomic nervous system activity. We evaluated labour and delivery outcome measures and the condition of the newborns after birth. We used parametric and non-parametric statistical methods to compute the p value. The critical value for hypothesis testing was p<0.05. Results: No complications have been reported to occur in patients who had premature rupture of the membranes and delivered vaginally. This has been accounted for by the adaptation of the autonomic nervous system to pregnancy due to “mature” cervix. The latent period, time between membrane rupture and the onset of labour was 7.8±0.3 hours in primigravida and 6.6±0.5 hours in multigravida (p<0.05). The average duration of labour was 9.2±0.83 hours in primigravida and 8.1±0.69 hours in multigravida (p<0.05). The newborn infants showed no signs of asphyxia. Segmental vascular responses in patients “mature” cervix and PROM demonstrated maladaptation of the autonomic nervous system to pregnancy. The latent period in these patients was 14.2±1.42 hours in primigravida and 11.5±2.1 hours in.
multigravida (p=0.05). This subgroup exhibited abnormal uterine contraction patterns, with the contractions being significantly higher than in the comparison group (p=0.01). The average duration of labour was 11.2±0.92 hours in primigravida and 9.95±0.54 hours in multigravida. We performed C-section in 17 (37%) patients with "immature" cervix due to a lack of effect from uterine contraction abnormality treatment (RR=2.0; CI:1.10-3.96). 8 (17.4%) infants were born with asphyxia (Apgar score 4.8±0.84) and required neonatal resuscitation (p=0.01). **Conclusion:** We conclude that PROM does not affect the labour process and pregnancy outcomes in patients with well-adapted autonomic nervous system. Pregnancy outcomes in such patients are usually favorable. Dysfunction of the autonomic nervous system contributes and PROM causes the risk of contraction abnormalities, intrauterine infection and suffering of the fetus.

**P157-1301**
SATISFACTION RATE OF NORMAL VAGINAL DELIVERY AND ITS RELATIVE FACTORS AMONG CHILDBEARING WOMEN IN IRAN HOSPITALS, 2015-2017

Sareh Abdollahifard¹, Majid Maddahfar²
¹Jahrom University of Medical Sciences, Jahrom, Iran, Jahrom University of Medical Sciences, Jahrom, Iran, Jahrom, Iran
²BHOWCO Trading GmbH, Frankfurt am Main, Germany, BHOWCO Trading GmbH, Frankfurt am Main, Germany, BHOWCO Trading GmbH, Frankfurt am Main, Germany, Germany

**Background:** Patient’s satisfaction is one of the most important health indicators in health care systems which is used for care qualification and providing health services. Hence, a descriptive study is carried out to determine the satisfaction degree of normal delivery and its relative factors in childbearing women of “Motahari, Jahrom” Hospitals during 2015-2017. **Materials and Methods:** In this study, 690 literate Iranian childbearing mothers were chosen via a non-probable sampling. Data gathered by a questionnaire consisting of 4 parts (pain severity, personal control, environmental satisfaction, childbirth satisfaction) and two checklists of demographic features and past obstetrics records. Respectively, the pain ruler was used to estimate the pain severity, the questionnaire of labors Agentry Scale to personal control, 17-question Likert scale to environmental contentment and 18 questions derived from 34-item questionnaire of Mackey Childbirth satisfaction to childbirth content. Using SPSS 16, Mann-Whitney and Cruskal- Wallis non-parametric tests, Spearman’s Correlation, variance Analysis and regression test were applied to analyze the information. **Results:** Among the studied women, 68.9% were contented with their childbirth, whereas 9.1% of them were unsatisfied with their childbirth. There was a meaningful full relationship among pain severity, environmental satisfaction, personal control, childbirth factor, reserved length of the first phase of labor, pregnancy age, the conformity of newborn’s gender with father’s and with mother’s will, lack of problem in their second and third delivery, mother’s degree of education, economical situation, and spouse’s occupation with childbirth gratification in hospital. Based on regression test, the personal control variables and environmental content were achieved to be the predictors of childbirth gratification. **Conclusion:** It is outstanding that the contentment with childbirth is a multi-factor issue and to increase the mothers’ positive experiences and prevent them from side-effects of their negative experiences, all the aspects must be comprehensively, simultaneously, considered.
Inspired by nature
VAGINAL ERBIUM LASER FOR WOMEN HEALTH

15:00 – 18:00 Thursday, November 30, 2017

15:00 - 15:05 Introduction by program coordinator

Santiago Palacios, Spain

15:05 - 15:45 Physical concepts of the application of lasers in Gynecology and the treatment of Vaginal Relaxation Syndrome

Zdenko Vizintin, Slovenia

15:45 - 16:25 Laser use in Genitourinary Syndrome of Menopause

Marco Gambacciani, Italy

16:25 - 17:05 Laser use in Stress Urinary Incontinence and Pelvic Organ Prolapses

Aleksandra Novakov-Mikic, Serbia

17:05 - 17:45 Future indications of laser treatment in Gynecology

Santiago Palacios, Spain

17:45 - 18:00 End-of-Course Test
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<td><strong>Industry Symposium</strong>&lt;br&gt;Friday, December 1, 2017&lt;br&gt;Supported by IBSA</td>
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<td>Bart Fauser, The Netherlands&lt;br&gt;Wilfried Feichtinger, Austria</td>
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<td>Beyond classical COS: Coming out of the box&lt;br&gt;Dominique de Ziegler, France</td>
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<td>Novel concepts in the classification and treatment of male infertility&lt;br&gt;Csilla Krausz, Italy</td>
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## INDUCTION OF LABOUR: IS TOMORROW, THE SAME AS TODAY?

**Friday, December 1, 2017**  
**Supported by Ferring**

### Chairpersons

- **Hanns Helmer**, Austria  
- **Asma Khalil**, UK

### 10:20 – 10:25

**Welcome and introduction**  
- **Hanns Helmer**, Austria  
- **Asma Khalil**, UK

### 10:25 – 10:50

**Current landscapes and future directions in IoL**  
- **Hugh Miller**, USA

### 10:50 – 11:30

**Induction of labour methods: Room for debate?**  
- Pharmacological methods  
- Mechanical methods  
- **Thierry Harvey**, France  
- **Jacob Bar**, Israel

### 11:30 – 11:40

**Future considerations**  
- **Hanns Helmer**, Austria  
- **Asma Khalil**, UK

### 11:40 – 11:50

**Q&A**
EBM provided a big leap forward in the understanding and treatment of disease. Is something missing in the translation of the data for individuals?

Chairpersons Basil Tarlatzis, Greece
Georg Griesinger, Germany

Is EBM equipped to meet the challenges for developing personalized medicine?
What hampers individualized approaches in IVF?

Georg Griesinger, Germany
Personalized medicine is the way to the future
Bart Fauser, The Netherlands
Discussion

AMH is highly valuable for ovarian stimulation
Con: Claus Yding Andersen, Denmark
Pro: Dominique de Ziegler, France
Discussion
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Induction of Labour: IS TOMORROW THE SAME AS TODAY?

10:20–11:50
Co-chairpersons: Asma Khalil (UK) and Hanns Helmer (Austria)

AGENDA

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Asma Khalil (UK) and Hanns Helmer (Austria)

10:25–10:50
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Hugh Miller (USA)

10:50–11:30
Induction of labour methods: Room for debate?
- Pharmacological methods – Thierry Harvey (France)
- Mechanical methods – Jacob Bar (Israel)

11:30–11:40
Future considerations
Asma Khalil (UK) and Hanns Helmer (Austria)

11:40–11:50
Q&A
All

Understanding Individualized Treatments

12:30–13:40
Co-chairpersons: Basil Tarlatzis (Greece) and Georg Griesinger (Germany)

AGENDA

12:10–12:55
Is EBM equipped to meet the challenges for developing personalized medicine?
- What hampers individualized approaches in IVF? – Georg Griesinger (Germany)
- Personalized medicine is the way to the future – Bart Fauser (The Netherlands)
- Discussion

12:55–13:40
AMH is highly valuable for ovarian stimulation
Con: Claus Yding Andersen (Denmark)
Pro: Dominique de Ziegler (France)
- Discussion
The 26th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)
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