

ABSTRACTS OF THE CONFERENCE
December 8th 9th, 2011

WEDNESDAY, December 7th, 2011:
(Zamalek Marriott Hotel Cairo)

4:00 –7:00 p.m.: REGISTRATION	(Salon Vert)
6:00 –7:00 p.m.: PRESS CONFERENCE	(Salon Vert)

THURSDAY, December 8th, 2011:

08:00 – 09:30: REGISTRATION	(Salon Vert)
09:30 – 10:00: OPENING CEREMONY	(Aida Ballroom)
10:00 – 14:15: PLENARY SESSION	(Aida Ballroom)

Medical Exhibition (Aida Foyer):

Thursday, December 8th, 2011	09:00 a.m.- 05:00 p.m.
Friday, December 9th, 2011	09:00 a.m.- 05:00 p.m.

SCIENTIFIC PROGRAM

THURSDAY, December 8th, 2011:

- 09:30 – 10:00: Opening Ceremony: (Salle A)**
- 10:00 – 12:30: Session (1) (Salle A): PLENARY (1)**
- 12:30 – 14:15: Session (2) (Salle A): PLENARY (2)**
- 14:15 – 15:00: Session (3) (Salle A): INDUSTRY SPONSORED SYMPOSIUM
BAYER HEALTH CARE.**
- 15:30 – 16:45 Session (4) (Salle A): HYSTEROSCOPY
Session (5) (Salle B): ENDOSCOPY
Session (6) (Salle C): OVULATION INDUCTION**
- 16:45 – 18:00: Session (7) (Salle A): EGYPTIAN REPRESENTATIVE
COMMITTEE (ERC) of (RCOG)
Session (8) (Salle B): ENDOCRINOLOGY
Session (9) (Salle C): FERTILITY & CONTRACEPTION**

FRIDAY, December 9th, 2011:

- 09:00 – 12:00: Session (10) (Salle A): PLENARY (3)**
- 13:30 – 14:15: Session (11) (Salle A): PLENARY (4)**
- 14.30 - 14.50: Session (12) (Salle A): INDUSTRY SPONSORED SYMPOSIUM
INSPIRE**
- 15.10 - 16.15: Session (13) (Salle A): GYNECOLOGY
Session (14) (Salle B): PREIMPLANTATION EARLY PREGNANCY
Session (15) (Salle C): PREGNANCY & WOMEN'S RIGHTS**
- 16:15 – 18:00 Session (16) (Salle A): MENOPAUSE & WOMEN'S HEALTH
Session (17) (Salle B): OVULATION
Session (18) (Salle C): BASIC RESEARCH (Prize Session)**

THURSDAY, December 8th 2011:

SESSION (1): (Salle A)(10.00 – 12.30)

PLENARY SESSION (1)

(1) Remarkable People in Remarkable Events in Reproductive Medicine

**Dr. Zaid Kilani,
Director, Farah Hospital, Jordan**

In my memorial lecture, I will start with the 16th century, the time I believe when the notion of assisted reproduction began. The nadir of the progress of assisted reproduction started with the discovery of the microscope. The role of Robert Hooke, the inventor of the microscope, will be mentioned herein. van Leeuwenhoek, incorrectly believed to be the inventor of the microscope, nevertheless he made a very important contribution with the discovery of sperm. Others will be mentioned too, but the role of Regnier De Graff in describing the follicle will be highlighted, followed by Edouard Van Beneden who recognized that fertilization occurs as a result of the union of two mammalian haploid gametes.

I will focus on the discovery of the DNA double helix structure by James Watson and Francis Crick, and DNA structure by Maurice Wilkins, Then I will proceed to chemistry and the discovery of antagonists by Roger Guillemin and Andrew Schally. The role of McArthur and her work on LH will be emphasized. The concept of *in vitro* fertilization (IVF), which began in 1931 will be discussed, followed by the realization of the dream by Robert Edward and Patrick Steptoe with the delivery of Louise Brown July 1978. Undoubtedly, IVF opened doors for new techniques in infertility treatment, new medications, culture media, and new sciences.

The story of pre-implantation genetic diagnosis and Alan Handyside will be discussed. Finally, message will be delivered to benefit humanity and the duty of future Arab clinicians and scientists.

(2) Endometriosis is a curable disease.

Prof. Alan DeCherney, USA

Despite the progress made in discovering new information about endometrioses, there are still multiple questions in understanding the nature of the disease as far as pathogenesis, how the disease causes infertility, and

the latest treatments for the disease. Since endometriosis is a molecular disease, signaling pathways has also become important with an aim in identifying new specific therapies.

Although there are a number of factors that play into understanding how endometriosis causes infertility, the current feeling is that the fallopian tubes are filled with activated macrophages, which inject sperm. Therefore, approximately 1,000 sperm enter the fallopian tube after an ejaculate; if these are phagositized then the chance of pregnancy is decreased.

Other functions that contribute to the infertility associated with endometriosis is the luteinized un-ruptured follicle syndrome and the pelvic adhesions, which impact the ovarian pick-up mechanism.

Although for years it was thought that endometriosis could only be diagnosed if a laparoscopy was performed or surgical evidence were found, today it is apparent that empiric therapy with GnRH antagonist will allow you to make a diagnosis regardless of whether the symptoms are apparent; a notion that was published in the *New England Journal of Medicine*.

Other therapies aside from GnRH analogs are birth control pills and Danocrine, which are highly effective. There is also femara (2.5 mg 2D/BID), which is an aromatase inhibitor that is very effective.

New therapies have lead to the understanding that eutopic endometrium is different than endometrium, with aromatase being the best example. Since ectopic has an aromatase activity when an aromatase inhibitor is given, it causes these lesions to regress. A side bar to this idea is that some patients with endometriosis also have abnormal eutopic endometrium. Surgery still remains a good therapy for patients with adhesive disease.

New therapies on the horizon are ways to highlight endometriosis for radiologic or microscopic evaluation and the use of nanotechnology to treat endometriosis. Of course, financial restraints and conservation will become more important as healthcare finances change in the near and distant future.

(3) New developments for ovarian stimulation in ART

¹Klaus Diedrich

¹*Department of Gynecology and Obstetrics, University of Schleswig-Holstein, Campus Lübeck*

Ovarian stimulation contributes to the overall effectiveness of in vitro fertilization treatment. However, ovarian stimulation is also associated with health risks, adverse events, treatment burden for the patient and high financial costs. Ovarian stimulation therefore needs to be continuously

improved. In this literature review, three important new developments in the field of ovarian stimulation have been selected for discussion.

Human chorionic gonadotropin as the triggering agent for ovarian hyperstimulation syndrome (OHSS) can now safely be replaced with a bolus dose of a gonadotropin-releasing hormone agonist. This has been shown to reliably prevent OHSS, the most serious complication of ovarian stimulation. To reduce the injection frequency of gonadotropins, a long-acting follicle-stimulating hormone molecule (C-terminal peptide, FSH-CTP) has been developed and tested in a large set of clinical trials. It was shown that long-acting FSH-CTP is able to stimulate the ovaries for 7 days at doses of 150 and 100 µg, respectively, and that the outcome in terms of pregnancy likelihood is similar to conventional gonadotropin stimulation by daily injection. Orally active non-peptide mimetics of luteinizing hormone and FSH are currently being developed. However, no data on the administration to humans have been published to date, and only scarce data on in vitro and animal experiments are available.

(4) Minimally Invasive and Robotic Gynecologic Surgery Applications.

Mona E. Orady MD, FACOG.

Division of Minimally Invasive Gynecology and Robotic Surgery
Women's Health Services
Henry Ford Health System

Objectives

At the end of this presentation Attendees will be able to outline:

- Definition and indications for minimally invasive surgery in Gynecology
- Different minimally invasive approaches in Gynecologic Surgery and indications for each
- Indications and advantages of robotic assisted laparoscopic surgery in Gynecology

ABSTRACT

Minimally invasive surgery has gained enormous momentum in gynecology. Advances in technology and laparoscopic instruments are allowing the extension of the minimally invasive approach to a much broader range of patients with many gynecologic problems being treated primarily in this manner. Applications in gynecology and indications for different types of minimally invasive gynecologic surgery such as hysteroscopy, laparoscopy, and robotic surgery will be discussed in detail. Risks and benefits of the different approaches and application in management of patients with heavy bleeding, pain, endometriosis, and uterine fibroids will be discussed.

The benefits of robotic surgery, which has allowed extension of a minimally invasive approach to a broader range of patients and procedures, will be highlighted. Highly specialized applications in subspecialties of maternal-fetal- medicine, uro-gynecology, reproductive endocrinology, and gynecologic oncology will also be reviewed.

THURSDAY, December 8th 2011:

SESSION (1): (Salle A) (12.30 – 14.15)

PLENARY SESSION (2)

(5) Fertility sparing surgery for women in reproductive age

Masciullo V., Scambia G.

Division of Gynecologic Oncology, Catholic University of Sacred Heart,
Rome, Italy

Gynecologic malignancies often affect young women in their reproductive age. These women faced with difficult decision related to their cancer care treatment as well as future childbearing potential. Advances in surgical management have allowed patients to undergo more conservative treatment with preservation of fertility. Radical trachelectomy and ovarian transposition in cervical cancer, hormonal therapy and hysteroscopic resection in endometrial cancer and conservative surgery in ovarian cancer represent major advances in fertility sparing surgical management. However, in addition to understanding the surgical approaches available, gynecologist should be able to counsel patients regarding their eligibility for and the indications and limitations of fertility sparing approach for gynecologic cancer.

(6) Alternatives to Hysterectomy in modern Gynecological practice.

Prof. Peter Hornnes, Denmark

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E-mail: peter@hornnes.dk.

For women, hysterectomy is in many parts of the World the most commonly performed surgical procedure ranging in life term incidence up to 30%. In most countries less than 10% of hysterectomies are performed because of malignant or premalignant conditions, whereas the rest of the hysterectomies are performed because of bleeding disorders (32% of hysterectomies in Denmark), leiomyomas (25%), prolapse (15%) or pelvic pain (8%). For each of these benign indications, modern gynaecological practice offers alternatives that should be considered prior to hysterectomy.

In women with bleeding disorders medical treatment with oral contraceptives or hormonal replacement therapy may be useful options as well as treatment with tranexamic acid. The levonorgestrel IUD reduces bleeding with up to 97% and confers the same improvement of quality of life as hysterectomy but it might result in more pelvic pain than hysterectomy does. After five years 42% of women treated with the levonorgestrel IUD will have undergone a hysterectomy. Destruction of the endometrium can be carried out by several methods, first generation methods employing hysteroscopy, second generation methods without hysteroscopy. Endometrial destruction is less efficient than hysterectomy but implies a shorter hospital stay and fewer complications.

It is important only to treat women with leiomyomas if these cause symptoms. The choice of treatment should depend on the location of the leiomyoma and whether the patient wants to maintain her fertility. Uterus conserving myomectomies might be carried out by laparotomy, laparoscopy, or hysteroscopy. The risk of recurrent leiomyomas is 51% after five years, after ten years 18% of patients will have needed additional surgery. Myomectomy can be combined with embolisation or occlusion of the uterine arteries.

It is also important only to treat women with uterine prolapse if the condition causes symptoms. Alternatives to hysterectomy might be pelvic muscle training and pessary treatment or other uterus conserving operations.

In women with chronic pelvic pain other treatment options should be considered prior to surgery but hysterectomy conveys an improved quality of life above that of conservative treatment although 25% of patients will experience pain event after the operation.

(7) Robotics in reproductive surgery: Strengths and limitations.

**Dr. Mohamed A. Bedaiwy, MD, PHD,
USA**

Laparoscopic techniques are becoming increasingly common in gynecologic surgery. Conventional laparoscopy can be challenging. A robotic system gives several advantages over conventional laparoscopy and has been incorporated into reproductive gynecological surgeries. The objective of this talk is to review recent applications on robotically-assisted laparoscopy for reproductive surgery. Recent evidence showed that robotic surgery is associated with less post-operative pain, shorter hospital stays, faster return to daily activities, and decreased blood loss. Reproductive outcomes are so far similar to conventional

approaches. Dis advantages of robotic surgery include longer operating room times, the need for specialized training, and increased cost of installing the equipments. Prospective studies comparing robotic approaches with laparoscopy and conventional laprotomy are ongoing.

Short term outcomes on robotically assisted myopmectomies, tubal anastomosis and endometriosis surgery will be reviewed. Long-term outcomes after robotic surgery will ultimately determine the utility of these procedures.

(8) Laparoscopy in Gynaecologic Malignancies

Prof. Walter Jonat,

Professor of Medicine, University of Hamburg

Director - University of Kiel - Department of Obstetrics and Gynaecology

THURSDAY, December 8th , 2011:

SESSION (3): (Salle A) (14:15 – 15:00)

INDUSTRY SPONSORED SYMPOSIUM
BAYER HEALTH CARE

(9) Mirena: the future of therapy today.

**Prof. Alaa El Feky,
Ain Shams University, Egypt.**

(10) Innovation in Contraception.

**Prof. Mohamed Momtaz,
Cairo University, Egypt.**

THURSDAY, December 8th, 2011:

SESSION (4): (Salle A) (15:30 – 16.45)

HYSTEROSOCOPY

(11) Hysteroscopic Procedures update- Update.

Dr. Medhat Hassanein, UK.

Minimal Access Surgery developed significantly in the last 25 years with better understanding of the electro surgery properties and the development of endoscopic instruments, techniques and better understanding of the gynaecology problems and its effective management.

Most of the gynaecology surgery can be done endoscopically
Some benefits of MAS in gynaecology are quick post operative recovery, short hospital stay, less demand for postoperative analgesia, less risk of developing postoperative adhesions, and it is cosmetic compared to conventional surgery.

Hospitals reduce bed capacity created a high demand for office procedures and one stop Hysteroscopy were cases such as endometrial ablation, polypectomy, resections of submuocus fibroid or sterilisation are all done under local Anaesthesia.

Though the benefits of MAS to the patients and Hospitals are obvious but still its uses are limited because of the lack of training, cost and limited recourses

(12) Sticking of endometrium, from minor adhesion to complete obliteration.

Prof. Moneir Fawzy El Haw,
Prof. of Ob/GYN
Ain Shams University, Egypt.

(13) Hysteroscopic cutting of the broad base intrauterine septum (experience with 42 cases in 22 years)

Prof. Ayman Assaf, Egypt.
Prof. Ob/Gyn. Benha University, Egypt

During the last 20 years, hysteroscopic metroplasty became the standard way of managing the intrauterine septum. There are many types of the intrauterine septum: Fundal, Cervico-fundal or vagino-cervico-fundal

septum, each type may be subdivided, according to the width of the base into thick or thin septum.

In our study we considered the base to be broad if the thickness was more than 3 cm. During cutting the broad base septum, one may expect more technical difficulties, bleeding and more incidence of perforation. With the large raw surface area after cutting, one may expect more incidence of intra-uterine adhesions.

Form February 1989 till April 2011 we performed 161 metroplasty , 49 out of them were broad base.

During our presentation we would illustrate the technical difficulties, post-complications after cutting the broad base septum. We would also illustrate the type of post-metroplasty therapy and the incidence of intra-uterine adhesions after the procedure.

(14) Efficacy of 3-Dimension Trans-rectal Hysterosonography Guided Hysteroscopic Metroplasty, Pilot study.

Ahmed M.F. Mohamed, M.D¹ , Moustafa A.M. Kamel, M.D¹, Loay Abdelenuen, M.D² and Sally S Eltawab, M.D¹.

(1) Obstetrics and Gynecology, University of Alexandria, Alexandria, Egypt.

(2) Obstetrics and Gynecology, University of Ein Shams, Cairo, Egypt.

Objective: "To assess the hysteroscopic resection of uterine septum guided by trans-recatal 3-Dimensional hysterosonography.

Design: Prospective intervention pilot study.

Setting: Shatby Maternity University Hospital (Tertiary Level Hospital) .

Patients: Eleven patients with infertility or recurrent pregnancy loss problems diagnosed to have uterine septum by HSG and 2D vaginal ultrasound.

Interventions: Inpatient hysteroscopic resection of the uterine septum was done for all cases using resectoscope with monopolar-knife electrode, trans-rectal hysterosonography was used intermittently during the procedure to ensure completeness of the metroplasty with safety. All patients had post-operative HSG two months later to evaluate complete resection of the uterine septum.

Measurements & Main Results: In six patients, Intraoperative Trans-rectal 3D hysterosonography confirmed complete resection with no need for further correction. In four patients there was missed residual parts with length ranging from 5-10 mm, complete resections of those missed parts were achieved under the ultrasound guidance. Trans-rectal 3D hysterosonography confirmed complete resection with no need for further correction. In four patients there were missed residual parts with length ranging from 5-10 mm, complete resections of those missed parts were achieved under the ultrasound guidance. In one case the sonographer recommended end of the

resection to avoid perforation. Post operative follow up HSG revealed complete removal of the septum with no residual part and restoration of fundal integrity in all patients. The case ended following recommendation of the sonographer showed over-correction of 3 mm depth.

Conclusions: Trans-rectal 3D ultrasound guided hysteroscopic metroplasty seems to be reliable safe non invasive tool which allow complete precise removal of the uterine septum in one session with no residual and avoid injuring of normal myometrium leading to weak fundus and subsequent risk of rupture during pregnancy. Moreover, no need to either intra-operative laparoscopic monitoring or post- operative HSG follow up.

THURSDAY, December 8th, 2011:

SESSION (6): (Salle B) (15:30 – 16.45)

ENDOSCOPY

(15) Overview of Robotic Hysterectomy in Benign Gynecology

Mona E. Orady MD, FACOG

Division of Minimally Invasive Gynecology and Robotic Surgery
Women's Health Services
Henry Ford Health System

OBJECTIVES:

At the end of this presentation attendees will:

1. Understand the advantages and disadvantages of the daVinci robotic system and its use in benign gynecology.
2. Specifically understand the applications of daVinci robotic assisted approach to hysterectomy, including complex hysterectomy.
3. Evaluate possible advantages or disadvantages of the robotic hysterectomy over traditional methods of hysterectomy

ABSTRACT

Hysterectomy is one of the most common gynecologic procedures performed for benign indications.. To date more than 80% of hysterectomies are still performed via laparotomy. Minimally invasive, laparoscopic and vaginal hysterectomy procedures were limited by uterine size, complex pathology, patient BMI and history of previous surgeries. The advent of robotic surgery using the da Vinci Surgical System, developed by Intuitive surgical, has given laparoscopic surgeons the ability to approach more complex cases minimally invasively, thus decreasing the need for laparotomy. Since its approval by the US FDA for use in gynecologic procedures in 2005, the adoption curve for da Vinci Hysterectomy has been exponentially growing.

This presentation provides an overview of the robotic hysterectomy procedure, the risk and benefits of this approach, and evaluation of possible advantages or disadvantages of its adoption as compared to traditional approaches to hysterectomy. Da Vinci Hysterectomy has been shown to be safe and effective with low morbidity and fewer conversions to laparotomy than the traditional laparoscopic approach to hysterectomy. Blood loss and length of hospital stay are comparable to laparoscopic hysterectomy. Although operative time is initially increased, this decreases significantly with increasing surgeon experience and becomes comparable to laparoscopic hysterectomy towards the end of the learning curve.

Since its approval for usage in gynecologic procedures, Robotic assisted Hysterectomy with the Da Vinci System, has allowed the performance of complex hysterectomies with the same advantages of traditional laparoscopic surgeries without increasing complication rates or conversions to laparotomy. Thus, its continued adoption and expansion of usage in hysterectomy is likely.

(16) Comparative studies between robotic laparoscopic between Laparoscopic myomectomy and abdominal myomectomy with factors affecting short term surgical outcomes.

Dr. Magdi Hanafi, USA.

Study Objective: To compare short-term surgical outcomes of robotic and abdominal myomectomy and to analyze the factors affecting those short-term surgical outcomes.

Design: Retrospective study of a consecutive case series.

Setting: Tertiary care facility.

Subjects and method: From 2007-2009, 125 patients with symptomatic leiomyomata underwent either robotic assisted laparoscopic myomectomy (RALM) or abdominal myomectomy (AM) and 122 patients' information was fully obtained with 77 cases of RALM and 45 cases of AM. The variables included the type of surgery, age, BMI, gravity, parity, number of leiomyomata, diameter of largest tumor size, total operative time, estimated blood loss and length of hospital stay. Statistical analysis was performed using SAS 9.1 software. We set our alpha value to 0.05.

Results: No significant differences were found between the two groups regarding age, gravity and parity. However the BMI was significantly higher in AM compared to RALM group (mean was 31.02 ± 7.15 kg/m² in AM vs. 28.05 ± 5.98 kg/m² in RALM ; p=0.016). The number of leiomyomata was significantly larger in AM compared to RALM group (average was 4.22 ± 3.36 in AM vs. 3.06 ± 1.44 in RALM; p=0.009). The tumor size was significantly larger in AM compared to RALM group (mean was 53.11 ± 25.71 mm in AM vs. 42.93 ± 17.91 mm in RALM; p=0.011). The total operative time was statistically longer in RALM compared to AM group (mean was 205.43 ± 73.58 min in RALM vs. 161.65 ± 49.99 min in AM; p<0.001). The total estimated blood loss was significantly lower in RALM compared to AM group (mean was 110.19 ± 62.48 ml in RALM vs. 176.11 ± 82.22 ml in AM; p<0.001). The length of hospital stay was shorter in RALM compared to AM group (mean was 1.08 ± 0.42 days in RALM vs. 2.35 ± 1.24 days in AM;

p<0.001) and the predicted odds of staying one day or less in the hospital for patients receiving RALM was 193.5 times the odds for patients receiving AM when adjusted for the number of leiomyomata and the tumor size. Finally, the total operative time was significantly affected by the type of surgery, number of leiomyomata, tumor size, parity and interaction between parity and body mass index.

Meanwhile, the estimated blood loss was significantly affected by the type of surgery, number of leiomyomata and tumor size. The length of hospital stay was significantly affected by the type of surgery, number of tumors, and tumor size.

Conclusion: Our study has shown that RALM provides the patient with shorter hospital stay, less blood loss and increased total operative time compared to AM. The BMI of the patients is higher in the AM group compared to the RALM. The shorter hospital stay and decreases blood loss were the integral factors of the analysis which show the significant benefit of using the RALM procedure.

(17) Updates in single-port laparoscopy in gynecology

Dr. Amanda Nickles Fader, USA.

Assistant Professor, Gynecologic Oncology
Greater Baltimore Medical Center/Johns Hopkins Hospital
Associate Residency Program Director, Johns Hopkins GYN/OB Program
Director of Robotic Surgery, Greater Baltimore Medical Center.

(18) Laparoendoscopic Single –site surgery in gynaecology: recent innovations and applications.

**Dr. Mohamed A Bedaiwy, MD, PhD,
USA**

Objective: To review the recent developments in laparoendoscopic single-site (LESS) surgery in gynaecology.

Recent Findings: laparoscopic surgery has become a standard of care for the treatment of many benign and malignant gynaecological conditions. Recent advances in conventional laparoscopy and robotic-assisted surgery have favorably changed the entire spectrum of gynaecological surgery. Aiming towards improving morbidity and cosmesis, continued efforts towards refinement of laparoscopic techniques have lead to minimization of size and number of ports required for these procedures. LESS surgery is a recently crafted term used to describe various techniques that aim at performing laparoscopic surgery through a single, small-skin incision concealed within

the umbilicus. Recently, there has been a surge in the developments in surgical technology and techniques for LESS surgery, which have resulted in a significant increase of LESS across many surgical subspecialties. Recent outcomes data demonstrate feasibility, safety and reproducibility for LESS in gynaecology. LESS approaches for various gynecologic conditions and limitations of current technology will be reviewed in this talk.

Conclusions: LESS surgery represents the newest innovations in minimally invasive surgery. Rigorous evaluation of this new technology is necessary to evaluate the clinical utility of LESS in treatment of different pathologies.

THURSDAY, December 8th 2011:

SESSION (6): (Salle C) (15:30 – 16.45)

OVULATION INDUCTION

(19) Evidence of Autoimmunity in Women with PCOS.

Dr. Samir Abbas, FRCOG. KSA.

Introduction: Polycystic ovary syndrome (PCOS) is a common and heterogeneous disorder, affecting 5-10% of women in the reproductive age. The principal features of PCOS include androgen excess, ovulatory dysfunction, and/or polycystic ovaries. Despite of its high prevalence little is known about its aetiology. Autoimmune mechanisms have been hypothesized to be involved in various ovarian pathologies such as premature ovarian failure, idiopathic infertility, endometriosis and the PCOS. The diagnosis of an autoimmune mechanism in these pathologies has relied for a long time on the detection of antiovarian autoantibodies, but recently special attention has also been focused on the cellular component of the autoimmune response (i.e., the presence of antinuclear antibodies [ANAs], these antibodies are directed against parts of the cell nucleus and the cytoplasm). The heterogeneity of PCOS and of the various tests used to determine autoimmunity lead to conflicting results. Review of the studies demonstrated the need for further correlative analysis of wider autoantibody panel in larger studies to allow deeper understanding of this phenomenon and the potential significance toward better management of PCOS.

Our Work Impact: We aimed to contribute further data on the autoimmunologic process in relation to PCOS by investigating a panel of autoantibodies in a larger series of affected women and to test a potential management plan comprised of corticosteroid and immunoglobulin to improve the ART outcome in those women in a case-controlled clinical trial with the intention to treat. Our search in this area had taken over a 2 years period and had passed in two phases; phase 1) recruitment phase and phase 2) study phase.

Phase 1), aimed to recruit PCOS women based on the Rotterdam criteria and had been screened for a list of autoantibody panel included; thyroid antibodies (TG & TPO), antiovarian antibody (AOA) and antinuclear antibody (ANA), using the standard enzyme linked immunosorbent assay (ELISA). At least one or more autoantibody was present in 81.5% of PCOS women.

Phase 2), aimed to test the effect of immune-modulating therapy (corticosteroid & immunoglobulin, IVIG), on the ART outcome in those PCOS women in a clinical case-control study. Women were divided into 3 groups; **Group A)**, PCOS women with +ve autoantibody and adjuvant therapy was given, **Group B)**, PCOS women with +ve autoantibody and no therapy was given and **Group C)**, PCOS with -ve autoantibody and no therapy was given. The main outcome measures were oocyte quality, fertilization rate, embryo quality, implantation rate and pregnancy rate. All outcome measures were seen to be improved in group A to be equal to that of group C in contrast to the bad outcome in women of group B.

Conclusion: The involvement of autoimmunity in the pathophysiology of PCOS seemed to be evident. However, the aetiological significance of autoimmunity in this pathology still remains controversial. A discrepant association of some but not all autoantibodies may have a specific link to PCOS. The heterogeneity of PCOS and of antibody tests leads to conflicting results. The development of more accurate diagnostic tools are required to determine the real prevalence of autoimmune aetiology in PCOS as well as to select the patients in whom immune-modulating therapy namely, corticosteroid and immunoglobulin, may possibly improve the ovarian function and ART outcome as it was seen in our study. Further studies are still needed in this area.

(20) A new protocol for controlled ovarian stimulation in polycystic ovarian syndrome patients undergoing in vitro fertilization and embryo transfer.

Prof. Mostafa Abuzeid,

Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology, Hurley Medical Center and IVF Michigan, Rochester Hills, Michigan, USA.

Introduction

Despite decades of experience, controlled ovarian stimulation (COS) in patients with polycystic ovarian syndrome (PCOS) is still associated with several problems that has not been adequately resolved, including ovarian hyperstimulation syndrome (OHSS), lack of synchronization of developing follicles, and poor quality oocytes and embryos. In patients with PCOS the use of gonadotropin-releasing hormone antagonist (GnRH-ant) during COS for assisted reproduction (ART) has been shown to be associated with promising implantation and pregnancy rates. However, the optimal time for GnRH-ant initiation is still debatable. The purpose of this presentation is to determine whether early administration of GnRH-ant with the start of

gonadotrophins injections is associated with better implantation rate and pregnancy outcome compared with conventional GnRH-ant protocol (starting on day 5 of gonadotrophins injections). Secondary outcome measurements included clinical pregnancy, miscarriage, and delivery rates and the incidence of severe OHSS.

Materials and methods

One hundred forty women (age between 18-40 years) with PCOS (diagnosed according to Rotterdam Criteria) undergoing ART participated in a physician-blinded, prospective, randomized trial. GnRH-ant (0.25mg S.C) was started on day 1 of stimulation in 69 patients (Group 1) or on day 5 in 71 patients (Group 2). Forty six patients in Group1 and 44 patients in Group 2 had blastocyst transfer.

Results

There was no difference in the cancellation rate between Group 1 and Group 2 (13% vs. 12.7% respectively). There was no difference in the number of embryos transferred on day 3 (1.8+0.8 vs. 1.8+1.1) or on day 5 (1.9+0.4 vs. 1.8+0.7) between Group 2, respectively. For all embryos, the implantation rate in Group 1 (46.2%) was higher than Group 2 (35.7%), however the difference was not statistically significant [$p = 0.075$]. For blastocyst transfer the implantation rate in Group 1 was 55.1% compared to 40.4% in Group 2 ($p = 0.051$). There were higher clinical pregnancy and ongoing/delivery rates (68.3% vs. 56.5%) and (60.2% vs. 53.2%) per transfer for Group 1 and Group 2 respectively. However, the difference was not statistically significant. Both, first and second trimester miscarriage rates were not different between the two groups (7.3% vs. 5.7 and 4.9% vs. 0% in Group 1 and Group 2 respectively). There was a statistically significant higher biochemical pregnancy rate in Group 2 (18.6%) compared to Group 1 (2.4% [$p = 0.015$])

Conclusion

Our data suggest that the initiation of GnRH antagonist on day 1 (compared to day 5) of ovarian stimulation in women with PCOS may have some beneficial effects during ART, especially after blastocyst transfer. However, more studies are needed to confirm our findings.

(21) PCO patients- is there a role for Metformin?

Mohamed Hefni, FRCOG
Consultant Gynaecologist
Benenden Hospital Trust,
Kent, UK

The polycystic ovary syndrome (PCOS) is a common endocrinopathy effecting women of reproductive age, the condition is estimated to have a prevalence of

between 5 and 10%. The clinical presentation of PCOS is a heterogeneous collection of clinical, biochemical and sonographic features including: menstrual cycle disturbance, hirsutism, acne, alopecia, obesity, elevated luteinizing hormone (LH), hyperandrogenaemia, hyperinsulinaemia, insulin resistance and morphologically polycystic ovaries. Several phenotypes of PCOS exist forming a spectrum of a disorder ranging from a mild to severe disturbance

A recent consensus meeting of experts (ASRM/ESHRE, Rotterdam 2003) clarified the diagnostic criteria, PCOS being diagnosed if at least two of the following three criteria are met, in the absence of other pathology:

1. Oligo- and/or anovulation
2. Clinical or biochemical evidence of hyperandrogenism.
3. Ultrasound evidence of polycystic ovaries (12 or more antral follicles 2-9mm and/or ovarian volume greater than 10cm³)

The answers for the following two questions with evidence will be presented:

- Does metformin enhance the efficacy of IVF treatment?
 - Live birth rate is the most important measure of this.
- Does metformin enhance the safety profile of IVF treatment?
 - Incidence of moderate-severe OHSS after treatment is the most important measure of this for patients with PCOS who are at particular risk of developing OHSS.

(22) Agonist versus Antagonist Protocol in PCOS patients

Prof. Emad Darwish, MD,

Chairman of Obstetrics and Gynecology Department
Faculty of Medicine, Alexandria University, Egypt.

PCO is a relatively common cause of infertility. Many of these cases need IVF/ICSI for achieving pregnancy. It is well known that those cases are at higher risk for OHSS during ovarian stimulation. Ovarian stimulation can be done using agonist or antagonist protocols. In long agonist protocols HCG is used for final maturation of oocytes before pick up. While in antagonist protocols GnRh agonist in a small dose can be used for the final maturation of the oocytes. Using HCG for the final maturation of the oocytes carries the risk of increasing the possibility of OHSS. In this presentation we will try to compare the results of both protocols in PCOS cases. If both protocols give comparable results as regards pregnancy rate, then the use of antagonist protocol in PCOS cases should be the first choice to avoid the risk of OHSS in this group of patients.

THURSDAY, December 8th , 2011:

SESSION (7): (Salle A) (16.45-18.00)

EGYPTIAN REPRESENTATIVE COMMITTEE (ERC)
OF THE ROYAL COLLEGE (RCOG)

(23) Evaluation of Infertility.
Botros Rizk, USA

(24) Is Premature Ovarian Failure a Dead-End?

Prof. Hossam Fahem Abdel-Rahim; MD, FRCOG
Professor of OB / GYN, Al-Azhar University, Egypt

Premature ovarian failure (POF) is as frustrating to fertility specialists as it is to the patient and her family. Most patients consider that their hopes are "gone with the wind" forever once labeled as having POF.

POF occurs in at least 1% of women. This incidence seems to be rising because of the growing numbers of cancer survivors. The majority of cases (90%) are idiopathic, with the remaining cases being due to auto-immune, chromosomal and iatrogenic causes.

It seems that POF is a predictable disease. This should give the potential patients a chance to expedite their fertility and complete their family. There is also growing evidence that ovarian activity can be resumed in some cases, either spontaneously or with intervention. This should raise the issue of even using contraception in many cases.

Non-fertility-oriented intervention remains to be good counseling, psychological support and HRT.

(25) Recurrent implantation failure

Prof. Rowaa Mostafa,
Ain Shams University, Egypt.

Although IVF/ ICSI cycles success rate showed an increase over the past years, yet many cycles still fail. While attributable cause of the cycle failure may occasionally be present, in most circumstances there is no apparent explanation other than failure of implantation process. In some patients implantation failure occurs repeatedly. Recurrent implantation failure (RIF) is defined as failure to achieve pregnancy after three cycles in which reasonably good embryos were transferred. The possible causes of RIF may be decreased endometrial receptivity, defective embryonic development and other multifactorial causes. All of these possible causes are discussed together with different strategies to overcome this problem.

(26) Vaginoscopic Hysteroscopic procedures in virgins.

Prof. Amr El-Shalakany,

Early Cancer Detection Unit
Ain Shams University Maternity Hospital
Abbassia, Cairo, Egypt.

There has been an increasing role for hysteroscopy in the management of various gynecological problems. The role is not only diagnostic but equally therapeutic as well. The use of hysteroscopy in the investigation and treatment of virgin girls was usually hampered by traditional and religious beliefs of virginity. Keeping the hymen intact without the least possible damage is probably one of the main concerns of virgins or their guardians. It is not uncommon when they reject appropriately prescribed transvaginal procedure for that reason.

The introduction of the vaginoscopic (non-touch) technique has promoted these developments. Vaginoscopic hysteroscopy (no prior per vaginal examination, no speculum insertion and no use of tenaculum) is a possible way of exploring the female genital tract without disturbing the hymen. The absence of any prior cervical dilatation or and intrauterine manipulations, preserves the whole uterine cavity anatomical findings. So, accentuates diagnostic abilities It is also possible to perform The surgical procedures is helped with the use of fine graspers and scissors in addition to the use of monopolar and bipolar electro surgery.

The experience of 5 years operative vaginoscopic hysteroscopy in virgins will be presented.

(27) The role of bariatric surgery in the management of female fertility

Dr. Wafaa Benjameen Basta,

Matareya Hospital, Egypt.

It was found that women seeking fertility advice with a BMI above 29 kg/m² take longer to conceive, also assisted reproduction is less likely to be effective at this BMI and losing weight in a structured program of exercise and dietary advice is likely to increase their chances of conceiving.

Consensus was reached in the British Fertility Society guidelines that fertility treatment should be deferred in women who are morbidly obese, until they have lost weight to below a BMI of 35 kg/m², although in younger group who have more time (under 37 years with normal ovarian reserve) a weight reduction to less than 30 kg/m² is preferable.

The US Agency for Healthcare Research and Quality has issued a technology assessment on weight-loss surgery and pregnancy, commissioned by the American College of Obstetricians and Gynecologists. This assessment suggests that women who are obese increased their

chances of getting pregnant and reduced their risk of pregnancy complications by having bariatric surgery and that outcomes after delivery for both mother and child were acceptable, provided that adequate nutrition and vitamin supplementation was maintained.

THURSDAY, December 8th, 2011:

SESSION (8): (Salle B) (16.45-18.00)

ENDOCRINOLOGY

(28) Fertility and Diabetes.

Prof. Peter Hornnes,

Slotsalléen 9, DK-2930, Klampenborg, Denmark.

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E-mail: peter@hornnes.dk

Diabetes has significant impact on a number of fertility factors. Women with diabetes have a lower fecundity than women with normal metabolism, this might partly be explained by differences in body weight but diabetes appears in itself to be an independent risk factor for reduced fertility. In infertile diabetic women, the management of diabetes should be optimized prior to fertility treatment.

All pregnant women should be screened for gestational diabetes. Women with risk factors or glycosuria should be screened with a simplified oral glucose tolerance test. Gestational diabetes will be found in 3-5% of the pregnant population, and when the condition is found the women should be monitored and treated meticulously in order to reduce the risk of complications for the mother and infant. Subsequently, women with previous gestational diabetes have a 50% risk of developing manifest diabetes and should have regular oral glucose tolerance tests.

The issue of pregnancy should always be addressed when care providers see fertile women with diabetes mellitus. In some women with severe diabetic complications pregnancy should be discouraged. In all other women diabetes regulation should be optimized prior to cessation of contraception usage. Provision of care for pregnant women with diabetes is a highly specialised task that should be centralised according to local guidelines. Diabetes regulation should be monitored daily and diet and insulin treatment regulated closely. In the case of dysregulation prompt hospitalisation and intensive treatment is essential. Control for the development of diabetic complications should be intensified during pregnancy. Close obstetrical control is also mandatory with regular ultrasound examinations monitoring foetal growth and wellbeing and close surveillance for the development of obstetrical complications should be employed. Towards the end of pregnancy CTG monitoring is useful. Delivery should be induced at the latest at term, caesarean section should be considered in the case of complications.

After delivery the diabetes treatment should reflect the anticipated rapid change in metabolism, and the infant should be monitored at a neonatal intensive care unit.

(29) Progesterone supplementation: from implantation till delivery.

Mohamed Yehia MD, FRCOG.

Professor of OB & Gyn .
Ain Shams University.

Progesterone also known as P4 is a C-21 [steroid hormone](#) which is produced in the [ovaries](#) after ovulation in the [corpus luteum](#), the [adrenal glands](#) , and, during pregnancy in the [placenta](#). Progesterone is also stored in adipose tissue. Progesterone is implicated in the management of infertility, threatened abortion and in the management of preterm birth. the role of progesterone in luteal phase support in Natural cycle and in Induced cycles is debatable while its role in assisted reproduction (ART) is proven in all multi-centric trials. However the route of administration and formulation is still under study.

Though most of the obstetricians are using progesterone in the management of threatened abortion there is very little evidence to support this practice.

The role of progesterone in management of premature labour have been proven in numerous multicentric trials .the dosage and route is still debatable.

(30) Luteal phase support in ART: An evidence-based approach

Prof. Ahmed Badawy, MD MRCOG PhD

Mansoura University, Egypt

It is now evident that luteal phase support is necessary to optimize the outcome of ART. Pregnancy rates are significantly reduced in GnRHa ovarian stimulation without luteal phase support. Luteal phase support with hCG is not superior to progesterone and supplementary hCG to progesterone brings no advantage but increases risk of OHSS as compared with progesterone alone. The use of oral progesterone is clearly inferior to intramuscular or vaginal administration and is associated with an increased rate of side effects. The recent Meta-analysis showed a comparable effect in the endpoints of clinical pregnancy and ongoing pregnancy between Intramuscular Progesterone administration and vaginal progesterone either as oil-in-capsule or as a bioadhesive vaginal sustained release progesterone gel. A nominally significantly lower rate of miscarriage was observed with vaginal Progesterone compared with Intramuscular Progesterone.

No difference was observed in the overall clinical pregnancy rate when comparing vaginal sustained release progesterone gel with any other vaginal progesterone form, moreover, clinical pregnancy rates were similar in protocols using only GnRH agonists and when comparing vaginal gel with the traditional treatment of vaginal progesterone.

(31) Vitamin D and Infertility.

Dr. Ahmed Ragaa A. Ragab, MD; PhD

Professor of Reproductive Health,
IICPSR, Al-Azhar University

Abstract: Vitamin D is a fat soluble vitamin that is present in a variety of forms.

It is well established that vitamin D is required for normal growth and development. The role of vitamin D and its metabolism has only received attention recently. Recent research found a link between low levels of Vitamin D and problems with ovulation. Vitamin D is essential in the production of sex hormones of the body. It is thought that a deficiency of Vitamin D may lead among other things to ovulation disorders. Vitamin D deficiency has also been associated with poor pregnancy outcomes including pre-eclampsia and gestational diabetes.

Small scale studies conducted in the last years are not widespread enough to call for a change of fertility protocol, but the findings are very interesting and promising for those suffering from PCOS.

Vitamin D can be obtained for free by sitting out in the sun of the early morning or late afternoon and getting sun exposure on the arms and legs for 15-20 minutes per day. This sunlight exposure helps the skin to create Vitamin D3 that is then transformed into active form of vitamin D by the kidneys and liver. An oral supplement is also available.

The take home message **is Check Vitamin D Levels before IVF.**

THURSDAY, December 8th, 2011:

SESSION (9): (Salle C) (16:45 – 18:00)

FERTILITY + CONTRACEPTION

(32) Cross-border reproductive treatment with oocyte donation: what after?

Artemis Karkanaki Ph.D. and Safaa Al-Hasani, Ph.D.

Department of Obstetrics and Gynecology, University of Schleswig-Holstein, Campus Luebeck, Ratzeburger Allee 160, 23538, Lübeck, Germany

Objective: To review and analyze the various aspects of cross-border oocyte donation therapy and the possible implications for all involved parties.

Design: Detailed Medline search of relevant literature

Conclusion(s): Cross-border oocyte donation is a growing phenomenon that raises serious social, economical, ethical, medical, legal, anthropological and political issues. There are implications for the patient, the unborn child, the donor, the home-country, the destination country, the human society, the reproductive medicine per se and the natural evolution. Actions should be taken in order to avoid the negative future consequences and to supplement the deficient frame of legislation and recorded data. The role of the professional societies, in this context, is of great importance and should be highlighted. Education and control of the reproductive care professionals as well as fundamental regulations regarding the number of embryos transferred, the maximum number of stimulation cycles for oocyte donors and cross-border transfer of kryopreserved oocytes are of high priority. Access to information and international dialogue are also essential among other suggestions.

(33) Non-contraceptive use of Levonorgestrel-Releasing Intrauterine Device.

Prof. Ismail Mete İtil, Turkey.

Ege University. Dept of Obstetrics and Gynecology, 35100, Bornova, Izmir, TURKEY.

Non-contraceptive benefits of Levonorgestrel-Releasing Intrauterine Device are substantive, carry important medical and public health implications. In this presentation, the effects of the device in Menorrhagia, uterin fibroids and fibroid related menorrhagia, adenomyosis, endometrial hyperplasia, Eendometrial cancer, dysmenorrhoea and pain . Also the effects on pelvic inflammatory disease, endometriosis are evaluated.

The role of the Levonorgestrel-Releasing Intrauterine Device in endometrial protection during estrogen replacement therapy or tamoxifen in peri-menopausal women is discussed.

A better understanding of these effects, of this hormone-releasing IUD should lead to more effective patient counseling, which, in turn, should improve user quality of life, minimize unnecessary removals, and maximize continuation of use...

(34) Contraception and cancer risk.

Dr. Adel El Kady, Egypt.

Consultant OBGYN
DGO – FRCOG – FICS

Aims: To present the current evidence about the risk of cancer and cancer deaths because of hormonal contraception use.

Introduction: Steroidal contraception has been used worldwide for the last 51 years. In the year 2009, more than 100 million women used oral and other steroidal contraception to regulate their families and for other health benefits. Contraception offer a wide range of health and social benefits. The effective use of family planning significantly diminishes infant, child, and maternal mortality and morbidity. Contraception permits the sensible use of resources so the demand does not exceed the supply.

Because the oestrogen alpha receptors promotion of proliferation of cancer tissues through a mitogenic effect, steroids can initiate or cause breast, ovarian, endometrial, cervical and even colorectal cancer.

Consequently it is vital for women's health to address the concerns of any effect of steroidal contraceptives on their cancer risk above the base line incidence. Many contraception users come from developed countries where health resources may not allow adequate screening, prevention or early detection policies. In spite of its clear benefits, many women may be reluctant to use contraception for fear of side effects and complications, it is important for the health care worker to have the correct information to be able to offer sound evidence based counselling.

There has been many studies to address this important health issue and some of the results have been inconsistent.

This presentation summarises the result of these different studies and draws a final conclusion based on recent case control and cohort studies, meta-analyses and the Cochrane reviews.

Method: An extensive Ovid MEDLINE search in the last 10 years for the effect of hormonal contraception (oral, injections, patches, implants, vaginal ring and progesterone intrauterine system) on cancer risk and risk of death because of cancer due to the use of contraceptives.

Conclusion: In 2010, a UK large prospective cohort study for 46 112 women observed for up to 39 years compared the death rates among never users and ever users of oral contraception and concluded that ever users had significantly lower rates of death from all cancers; large bowel/rectum, uterine body, and ovarian cancer; main gynaecological cancers combined; all circulatory disease; ischaemic heart disease; and all other diseases. The study warns the balance of risks and benefits, however, may vary globally, depending on patterns of oral contraception usage and background risk of disease.

(35) Weight change and hormonal contraception: Fact and myth.

Dr. Mohamed El Sherbiny,

MD Obs. Gyn. Senior Consultant El Sherbiny Hospital, Damietta, Egypt

Perceptions of weight gain as a result of using hormonal contraceptives is widespread in many countries among both women and providers, and is one of the frequent reasons given for method discontinuation.

The current status of research findings shows some differences between the combined and progestogen-only contraceptive groups.

There is a general agreement that the use of combined contraceptives does not lead to weight gain. Older brands of high-dose combined oral contraceptives (COCs) may have been responsible for higher reporting of these side effects compared with more recent lower dose COCs. This may have resulted in the continuing association of COCs and weight gain, despite the new evidence suggesting otherwise.

On the other hand among users of depot-medroxyprogesterone acetate (DMPA) weight gain may occur, which may be limited to adolescent users who are overweight or obese at initiation of DMPA. Users who rapidly gain weight initially may also be at higher risk of greater weight increase. There is limited information on other progestin-only methods.

Mohamed El Sherbiny
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(36) New strategies for ovulation induction in infertile women with polycystic ovary syndrome and known clomifene citrate resistance

Dr. Mostafa H. El Nomrosy, Egypt.

Consultant Obst. &Gyn. Mehalla Kobra General Hospital

Background: Clomifene citrate is the first and the most commonly used drug for inducing ovulation in patients affected by polycystic ovary syndrome (PCOS). About 60-85% of PCOS women ovulated under clomifene citrate, whereas the others were defined clomifene citrate resistant, especially after using C.C. for up to six cycles at doses of 150 mg/day with a total dose of 500mg with no ovulation.

Objective: The purpose of the current review will be to Describe treatment solutions to induce ovulation in infertile PCOS patients with clomifene citrate resistance PCOS patients. Recent randomized controlled trial showed that: clomifene citrate and metformin combination are a valid option and laparoscopic ovarian drilling, in selected cases and new drug formulations, such as aromatase inhibitors, and others, should be considered before gonadotropin administration.

Conclusion: before announcing an infertile PCOS patient is clomifene citrate resistance, optimizing the performance of clomifene citrate effect should be tried for a sufficient time and every effort should be done to have its benefits before announcing its failure and shift to more expensive drugs.

FRIDAY, December 9th , 2011:

SESSION (10): (Salle A) (09.00 – 12.00)

PLENARY SESSION (3)

(37) The Ascent of the woman.

**Prof. Duru Shah,
India**

India's history is one of many dynasties, religions and conquering invaders. This is why India has become a pot of cultural and religious diversity, making it the ideal group to represent the Asian women with varying cultural and religious backgrounds

Medieval India was the "dark age" for woman which resulted in the decline of women's freedom due to foreign invasions. To protect their women from the barbarous invaders, women were protected, shielded and kept away from social contact. This led to new issues such as lack of education, child marriage, purdah system, restriction on widow remarriage and the terrible practices of "Sati" and "Devdasis"

In modern India, women's status is a sort of paradox. In urban cities, women have reached the pinnacle of success, whilst in rural India, women are suffering the violence inflicted upon them by their own families. On the one hand, Indian women have attained world acclaim in various fields such as politics, sports, art and entertainment, literature, social service and beauty pageants, yet on the other hand, women are the victims of malnutrition, poor health, increased maternal mortality, lack of education, domestic violence, lack of power to negotiate, dowry, female infanticide and foeticide!

Yes, the movement has begun for the Indian woman. Overcoming all cultural and religious discriminations, she is moving ahead at a fast pace and creating a trail called "The Ascent of the Woman" The Women's Movement in India is one of the most powerful and dynamic political movements and is focusing on violence against women, and economic empowerment of women. Various Social Reformers have ignited this movement. It is for us, as Gynecologists, to take it further.

(38) Endometriosis and implantation failure

Prof. Shawky Badawy,
USA

Objectives:

- Endometriosis as an autoimmune disease
- Endometriosis contribution to infertility and biological mechanisms
- Preparation of the endometrium for implantation
- Hormonal aspects of the endometrium preparation
- Studies related to genes and their effect on the preparation of the endometrium
- The normal implantation process

Effect of endometriosis on the decidualization process and the various genes that are influencing this process

(39) Adenomyosis and Assisted Conception: How much do we know?

Mohamed Hefni, FRCOG
Consultant Gynaecologist
Benenden Hospital Trust,
Kent, UK

The prevalence of adenomyosis is unknown:

The available data is based on histological diagnosis following hysterectomy. Pathologists do not adhere to clear set of criteria since there is no clinical impact on the individual patient. In surgical series have been reported 5-70%

Disruption of the Uterine Junctional Zone "UJZ". The junction between the endometrial and myometrium "interface". The importance of UJZ contractility on pregnancy rate has been studied in IVF/ET

The data showed that adenomyosis is commonly associated with endometriosis and has direct effects on uterotubal transport capacity. The data explains the reduced fertility in subjects with intact Tubo-ovarian anatomy.

In large Meta analysis (*Barnhart 2002*) Women with adenomyosis undergoing ART have a significant lower pregnancy rate compared with women with tubal factor infertility.

Take home message:

Before you make the diagnosis of Unexplained infertility or You have failure of Assisted Conception; the possibility of Adenomyosis must be excluded.

(40) Primary Ovarian Insufficiency POI (POF) : an update

Prof. Ismail Mete İtil, Turkey.

Ege University. Dept of Obstetrics and Gynecology, 35100, Bornova, Izmir, TURKEY.

Definition

“Primary” means that the disorder originates in the ovary, as opposed to some other organ or hormonal source, such as the brain.

“Insufficiency” means that the ovaries are not functioning to their normal capacity. This differs from “failure,” which indicates a complete shutting down of the ovary.

Initial assessment and investigations

- Good history, including family history
- Tests: serum FSH, LH, prolactin, TSH and E2. If FSH in menopausal range, repeat
- AMH and inhibin B – especially if fertility is an issue

Further investigations

- Chromosomal and genetic studies (karyotype, FMR1 gene mutation if family history of POI, fragile X syndrome or mental retardation, (ACOG rec.))
- Auto-antibodies: Auto-immune screen for polyendocrinopathy (thyroid antibodies, anti-adrenal antibodies,?ovarian antibodies???)
- Estimation of bone mineral density through DEXA. Repeated every 2 to 5 yrs

Inform

- Discuss the test results on a special visit (not by phone).
- The diagnosis of POI can be particularly traumatic for young women.
- Use of appropriate terminology is important (use of premature ovarian failure or insufficiency is preferred instead of premature menopause or early menopause)
- Explain the nature of the disease and advise the patient of sources of information and support.

Counsel

- The ovary is not only a reproductive organ but also is a source of important hormones that help maintain strong bones. Adequate replacement of these missing hormones, a healthy lifestyle, and a diet rich in calcium are essential. DEXA bone scan every 2 years may be needed.
- POF is not menopause. Spontaneous ovarian activity and pregnancies are possible.

- Allow the patient enough time to accept the diagnosis. Discuss fertility plans later, after the patient has come to terms with her condition.
- No proven therapies exist to restore fertility, and an experimental treatment should be performed only under a review board-approved research protocol.
- Currently available options to resolve infertility include change of plans, adoption, and ovum donation.

Replace Deficient Hormones

- Cyclic/continuous oral/transdermal estrogen and cyclic oral progestin are needed.
- Full replacement dose is needed to alleviate symptoms and maintain age-appropriate bone density.

Follow-up

- Adequacy of hormone replacement therapy (HRT) should be followed yearly.
- TSH and adrenal antibodies (expert opinion) should be followed yearly.
- ACTH stimulation test should be performed yearly if the adrenal antibodies are positive.
- DEXA bone density scan should be performed as needed

Consultations

- Consultation with an endocrinologist may be indicated in some cases because of concerns of hypothyroidism or adrenal insufficiency.
- Patients with infertility due to POF usually have a grief response after hearing the diagnosis. They benefit from a baseline psychological evaluation and appropriate counseling.

Genetic counseling may be needed in some cases.

Diet

- Patients with ovarian failure should consume 1200-1500 mg of elemental calcium per day in their diet. If this is not feasible, calcium supplementation is appropriate. An adequate intake of vitamin D also is important.

Activity

- Women with POF should be encouraged to engage in weight-bearing exercises for 30 minutes per day, at least 3 days per week, in order to improve muscle strength and maintain bone mass. Participation in outdoor sports is strongly recommended.

(41) Fertility Surgery: dead or alive.

**Prof. Alan H. DeCherney,
USA.**

With the appearance on the scene of IVF in 1978, it became apparent that most infertility could be treated with in vitro fertilization rather than with surgical procedures. The increase in the number of cycles that are done per year is evidence of this. At the same time, though, video laparoscopy became possible and many more surgical procedures were carried out with a minimally invasive technique. We will discuss the role of tubal surgery, treating endometriosis and intercavitary lesions as well as intramural myomas. To be considered are cost of IVF vs. other therapies, what patients want, and outcomes, of course, being the primary thing, with live babies being the standard.

There is very little help as far as evidence-based surgery is concerned. But needless to say neosalingosotomy carries very low success rates, about 5-10% if you look at live birth rates and, therefore, has been pretty much replaced by in vitro fertilization. Tubal anastomosis is a different story. These are fertile patients and, if they are younger than 37, this is an option. The difference is that patients want to be pregnant immediately and with tubal anastomosis, it can take up to two years. It is still unknown how robotic surgery will change this.

In regards to endometriosis, there are two factors to look at: endometriosis itself and, to look at a profound form of endometriosis, endometriomas. If endometriomas don't confirm infertility, then can endometriosis itself, to a lesser degree, be responsible? The national registry shows that fertility rates for patients with endometriosis are equivalent to other disease entities. Metanalysis carried out by Barnhart showed that patients with type one to two and three to four do have diminished fertility rates with IVF, implying that surgery would be the way to treat it. On the other hand, in patients with endometriomas, there seems to be very poor evidence that treating these patients has any impact on fertility. Therefore, the recommendation, as odd as it seems, is that if a patient has endometriosis, especially stages 1 and 2, fertility rates are greater if they are operated on, whereas if they have endometriomas, which are stage 3 and 4, it doesn't improve fertility rates to operate on these patients. Now this is not treating patients for pain or treating them for infertility per se, it is to prepare them for IVF. Another quandary in regards to treating patients with endometriosis is the diminished ovarian reserve because of tissue removal. The answer to this seems to be no.

As far as fibroids are concerned as well as polyps: intercavitary lesions definitely have lower implantation rates. The contested areas are intramural myomas. Here the rule seems to be if they impact on the cavity in anyway and if they are greater than 5 centimeters, then they should be removed. On the other hand, the smaller endometrial cavities do not matter. Most patients are evaluated by three- dimensional ultrasound.

In conclusion, one has to remember that most infertility can be treated short of in vitro fertilization and surgery itself. In regards to what the patient wants, certainly as IVF becomes cheaper, the fact that you can become pregnant in a much quicker timeframe is appealing to patients and certainly this relates to outcome as well.

(42) The future of robotic surgery in gynecology

Dr. Amanda Nickles Fader,
USA.

Assistant Professor, Gynecologic Oncology
Greater Baltimore Medical Center/Johns Hopkins Hospital
Associate Residency Program Director, Johns Hopkins GYN/OB Program
Director of Robotic
Surgery, Greater Baltimore Medical Center.

(43) Ovarian Hyperstimulation Syndrome.

Prof. Botros Rizk.
USA

FRIDAY, December 9th, 2011:

SESSION (11): (Salle A) (13.00-14.30)

PLENARY SESSION 4

(44) Infertility in Developing countries.

**Prof. Gamal Serour,
FIGO President, Egypt.**

Prevalence:

Infertility is a global public and social health problem particularly in developing countries. According to WHO using demographic definition, there were > 186 million ever married women of reproductive age (19-49) in developing countries except China by the year 2002. Furthermore in these countries there is gender suffering in infertility even if the woman is not the cause of infertility.

Causes:

Over the past two decades there has been changing prevalence of infertility and its causes. Some countries experienced increased prevalence of infertility because of increased incidence STDs, post partum and post abortive infections and male infertility. In Sub-Saharan Africa > 30% of women age 25-49 years suffers from secondary infertility and 50% of men have a history of STDs.

Needs for ART Service:

As the overall live birth rate after conventional treatment of infertility is 37%, couples who would need ART treatment will be 63% necessitating 1500 ART cycle/million population per year as optional requirement as recommended by ESHRE Capri Workshop group in 2001.

As tubal and male factor infertility rates are often significantly higher in developing countries there is more need for IVF/ICSI cycles in these countries. ART is the most effective treatment of these infertility cases.

Access to infertility services:

The availability of and access to infertility services particularly ART are a complex product of health policies, political, economic, religious and socio cultural forces that determine the allocation of facilities, equipment, personnel and techniques.

In developing countries provision of ART service is far from being optional varying between 60-200 cycles/mppa. Factors limiting access include, limited health resources, coupled with more pressing health problems as high MM and child mortality, cost of ART cycles, lack of trained personnels, problems associated with establishing ART centers and cultural and religious objections to use of ART for treatment of infertility in some countries.

Improving access to infertility services:

Infertility treatment is a human right. Women should be empowered so that when infertility occurs there is no gender suffering. Politician and policy makers should be convinced that infertility sufferings negatively affect population control policy.

Infertility should be prevented in the first place. In many cases expectant management is more effective than various methods of treatment. Health education of the public and continuous training and education of practitioners is mandatory. Simplified evidence base methods of investigation should be applied before initiation of treatment. Evidence based cost effective simple methods of treatment should be tried before embarking on ART in many case such as IUI, or endoscopic surgery.

ART service should be simplified. Its cost reduced through wider use of natural cycles, soft ovarian stimulation protocol, single embryo transfer and simplified laboratory techniques.

Conclusion:

The ethical principles of justice and equity imply that all people should have equal access to a full range of infertility services including ART without excessive burden. The collaborative efforts of International professional organizations, UN organization, Pharmaceutical Industry and policy makers are required to achieve this objective.

(45) Diagnostic dilemma of subtle uterine septum in patients with reproductive failure

Prof. Mostafa Abuzeid, Nisha Kalia, MD, Omar Abuzeid BA, Ahmed Kazem, and Mohamed Ashraf, MD
Flint, United States

Hysterosalpingogram (HSG) is an initial screening tool for evaluation of the uterus and the fallopian tubes. Although saline infusion sonogram (S.I.S) with 3-D US and diagnostic hysteroscopy (HS) are now the gold standard for evaluation of uterine factors including subtle uterine septum and arcuate uterus, HSG is still being used for evaluation of such patients. The purpose of this presentation is to discuss the diagnostic dilemma of arcuate uterus and incomplete short uterine septum.

Material and methods

Patients who presented to our unit with infertility and or recurrent pregnancy loss (1992 - 2008), and subsequently underwent hysteroscopic division of incomplete short septum or an arcuate uterus were studied. Prior to HS patients underwent at least one radiological study (HSG, S.I.S with 2-D US and more recently 3-D US) as a part of their workup.

We compared the findings on HSG with respect to the appearance of the endometrial cavity with the hysteroscopic findings. We also compared a limited data of S.I.S with 2-D US and 3-D US with hysteroscopic findings

Results

The sensitivity of HSG in detecting such subtle uterine anomalies was poor. In addition S.I.S with 3-D US appear to under estimate the extent of such anomalies. Furthermore was only helpful in the presence of a significant incomplete septum. Data will be presented. Possible causes for the reduced sensitivity of HSG in detecting such subtle uterine anomalies will be discussed.

Conclusion

This study suggests that HSG and S.I.S with 2-D US and 3-D US should not be used to rule out arcuate uterus or subtle uterine septum when the clinical presentation of the patient suggests a subtle uterine anomaly. The underlying reason for failure of these radiological studies to detect such anomalies in some patients is not fully understood. The only gold standard for the diagnosis of subtle uterine anomalies is HS by experienced reproductive surgeon.

(46) Improving efficiency, success and safety of ART.

Dr. Yakoub Khalaf,
UK

FRIDAY, December 9th, 2011:

SESSION (12): (Salle A) (14.30-14.50)

INDUSTRY SPONSORED SYMPOSIUM
INSPIRE PHARMA

(47) Total Dose Infusion technique in the management of IDA patient.

**Dr. Marwan Salloum,
Portsmouthv- UK.**

FRIDAY, December 9th, 2011:

SESSION (13): (Salle A) (15.10-16.15)

GYNECOLOGY

(48) Non-surgical management of uterine myomas.

**Prof. Giovanni Scambia,
Italy.**

Over the last few years there have been increasing efforts to develop alternative treatment options to surgery for treating symptomatic uterine myomas. With the advent of uterine artery embolization (UAE), there now exists a safe, effective and durable alternative to hysterectomy and myomectomy for women who wish to avoid surgery or for those in whom surgery is contraindicated. Randomized trials and long-term observational studies have demonstrated that UAE can provide symptom control similar to that obtained after surgery, with a lower rate of serious complications and a more rapid recovery. New technology has provided additional minimally invasive options for myoma treatment such as laser ablation, cryoablation, focused ultrasound ablation and transvaginal uterine artery occlusion that are currently under intense investigation. Furthermore, new medications have been introduced, that show promise for practical, long-term, medical therapy for symptomatic fibroids.

(49) Conservative management of non tubal ectopic pregnancy associated with ART.

Dr. Samir Ghorab, KSA.

(50) Transvaginal Ultrasound in the diagnosis of Adenomyosis.

**Dr. Magdy Hanafi,
USA.**

The objective of this study is to evaluate the correlation and accuracy of the diagnosis of Adenomyosis by the use of transvaginal ultrasound in comparison to the histopathological findings and its association with the co existence of Leiomyoma.

This is a retrospective study of eighty one patients; mean age 43.4 has been diagnosed with Adenomyosis by TV ultrasound. Fifty nine of these patients

have been diagnosed with leiomyoma in addition to adenomyosis by the ultrasound. All these patients underwent surgery either hysterectomy (for symptomatic adenomyosis only or both adenomyosis and leiomyoma), or myomectomy with excision of the surrounding myometrium contains possible adenomyosis (for symptomatic patients with both adenomyosis & leiomyoma) as per TV ultrasound diagnosis.

Histopathological confirmation of the diagnosis of adenomyosis (n=81) was positive in 57 patients (70.4 %) and negative in 24 patients (29.6%). Histopathological evidence for the group of patients diagnosed with both adenomyosis and leiomyoma (n=59) was positive in 37 patients (62.7%) and negative in 22 patients (33.3%). The histopathological diagnosis of leiomyoma was positive in 54 patients (91.5%) and negative in 5 patients (8.5%)

In conclusion, this study showed that TV ultrasound is a valuable non invasive method in the diagnosis of adenomyosis and it can be helpful in the diagnosis of both adenomyosis & leiomyoma.

Key words: transvaginal ultrasound, Adenomyosis, leiomyoma, histopathology, diagnosis.

**(51) Medical management of heavy menstrual bleeding. What is new?
An evidence based approach.**

Dr. **Hatem Abu Hashim**. MD. MRCOG.

A. Professor of OB/GYN

Faculty of Medicine, Mansoura University, Mansoura, Egypt

Background:

An estimated 10%-30% of menstruating women experience menorrhagia or heavy menstrual bleeding (HMB) at some time during their reproductive lives. It affects a woman's quality of life in her work, family, and social interactions. Medical management is the first line of therapy. Increased use of effective medical therapies has the potential to reduce the number of surgical procedures such as endometrial ablation and hysterectomy.

Aim: To review the available evidence with respect to medical treatment of HMB to guide proper clinical decision making.

Methods: A literature search was performed regarding women with HMB looking for guidelines, systematic reviews and randomized controlled trials (RCTs) followed by other levels of evidence.

Conclusion: At this presentation critical appraisal of the available evidence regarding medical management of this important problem including new modalities will be carried out as well as providing an algorithm for management.

FRIDAY, December 9th, 2011:

SESSION (14): (Salle B) (15.10-16.15)

PREIMPLANTATION EARLY PREGNANCY

(52) PGD In Saudi Arabia; Over A Decade Of Experience & Future Perspectives

**Dr. Samir Abbas, FRCOG
KSA.**

Our History: We introduced preimplantation genetic diagnosis (PGD) service to our IVF program at Samir Abbas Medical Centers (SAMC) as early as 1996 using the Fluorescence In-Situ Hybridization (FISH) techniques basically for three indications; 1) screening for common aneuploidies in advanced parental age IVF cases, 2) IVF for couples carrying balanced structural chromosomal abnormalities and suffering from fertility problems or recurrent abortions, 3) social sexing for family balancing.

With the introduction of techniques for testing of single gene disorders (SGD) on single cells and blastomeres, we were able to apply the technology and to introduce PGD for some common SGD in our community like thalassemia, sickle cell anemia, spinal muscular atrophy, Duchenne muscular dystrophy..etc into our PGD program and services.

Our efforts in that field resulted in a pioneering breakthrough event; the delivery of the first healthy twin babies after PGD in 2005 for a couple carrying thalassemia traits and having affected children.

Since then, our center has been established as a leading PGD center in the Arabian Gulf region.

Future perspectives: Recent technological advances in molecular genetics and cytogenetics has allowed simultaneous testing of a single cell genome for all chromosomes not only for gross numerical aneuploidies but also for high resolution copy number variation (CNV) as well as haplotyping by comparative single nucleotide polymorphism (SNP) analysis.

Array-CGH (Comparative Genomic Hybridization) that opens the potential for new horizons in PGD is performed using DNA microarray chips after whole genome amplification (WGA) of single genomes by multiple displacement amplification (MDA).

It could be envisaged that in the near future embryos could be tested not only for several SGD but also screened at the same time for chromosomal abnormalities, CNV, SNP, and uniparental disomy (UPD).

Conclusion: As the technology of PGD procedures and its clinical applications are advancing and expanding, PGD will play an increasing role as a critical option for both infertile and fertile couples to help them having healthy children and to improve IVF success.

(53) Avoiding Multiple pregnancy in ICSI cycles.

Prof. Ahmed Adel Aziz Ismail
OB / Gyn Department - Alexandria University

Multiple pregnancy carries a high risk of maternal and fetal morbidity . The incidence of multiple pregnancy is increased in cases of ICSI. Fetal reduction and single embryo transfer are the two main methods used to reduce the incidence of multiple pregnancy in ICSI. In this presentation we are going to discuss the hazards of multiple pregnancy on mother and fetus. Nevertheless, we will discuss the methods used to reduce multiple pregnancy, which are fetal reduction [technical, ethical, and psychosocial aspects] and single embryo transfer in addition to their impact on the outcome of pregnancy.

(54) Treatment of Embryo's Facts and Moral Questions

Prof. Serag Mansour,
Prof. Ob/GYN, International Islamic Center for population studies and research. Al Azhar University, Egypt

(55) Color Doppler in 1st trimester.

Prof. Alaa El Ebrashy
OB.Gyn Cairo university

Doppler physics:

What is Doppler flow

What is color flow mapping

Doppler machines

What is Power angio

How to interpret the Doppler waves

What is Color Duplex and Triplex

Applications for Color Doppler in 1st trimester:

- 1-Normal pregnancy
- 2-Missed abortion
- 3-Ectopic pregnancy
- 4-Gestational trophoblastic disease

New Dimensions for the use of Color Doppler :

- 1-Uteroplacental circulation in 12-13week pregnancy

How and when and how to interpret the results

- 2-Ductus venosus :

What is the Ductus venosus and how to measure

Clinical application : heart anomaly-chromosomal and congenital anomalies

- 3-Tricuspid regurgitation in the 1st trimester

The findings of recent studies suggest that examination of the fetal tricuspid flow at 11-13+6 weeks could have major beneficial implications in screening for Trisomy 21 by maternal age and fetal NT

- 4- Heart examination in the 1st trimester with the use of Color Doppler

U/S examination of the fetus in the 1st trimester is feasible for accurately detecting major CHD

It may be offered to women with high risk of having children with CHD

However it is greatly dependable on maternal adiposity ,quality of U/S equipment and Staff training

The provision of a wider scan service will have implications for health economics

Fetal echocardiography at 11+0 to 13+6 weeks using 4 dimensional spatiotemporal image correlation STIC telemedicine via an internet link : a pilot study

FRIDAY, December 9th, 2011:

SESSION (15): (Salle C) (15.10-16.15)

ENDOSCOPY

(56) Fetoscopy. The Egyptian experience

**Prof. Mohamed Momtaz,
Prof. OB/GYN.
Cairo University, Egypt.**

(57) Safety of laparoscopic introduction, did we reach the ultimate solution?

**Mohamed Faris, FRCOG
Mataria Teaching Hospital, Cairo, EGYPT**

The use of Veress needle to induce pneumoperitoneum is associated with some complications. In 0.05% of cases major vascular injury can complicate its use while the bowel is injured in 0.1% of cases. The direct use of the conventional trocar without prior induction of pneumoperitoneum is associated with fewer complications as compared to the Veress needle (Woolcott, 1997). We have used this direct technique for 30 years in a very large number of cases with no complications apart from insignificant omental injury in some cases and a single intestinal injury all over these 30 years in a patient with previous complicated abdominal surgery.

A trocar that allows vision of the abdominal layers during introduction was produced about 5 years ago. The safety of this trocar which is used for laparoscopic introduction without inducing a pneumoperitoneum was assessed in our unit over the last 5 years. The instrument, the technique, the complications and the results will be presented in detail.

(58) Laparoscopic versus abdominal myomectomy: A prospective, randomized trial to evaluate benefits in early outcome.

**HAZEM A, ELDEEB W, ELMORSY A.
Alexandria University, Egypt.**

A prospective, randomized trial was performed on 80 women, 22 to 44 years old, undergoing myomectomy.

Patients were randomized to have laparoscopy ($n = 50$) or laparotomy ($n = 30$) in Alex Sydeny Keil hospital from 2008 to 2010.

The myomas site were intramural (n=25) subserous (n=15) interligamentary (n=5) measuring from 3cm to 10cm

Myomas associated with chocolate cyst and adhesions(n=5)

Three cases were done by assisted laparoscopy(mini-laparotomy)

Two cases were performed by laparotomy due to multiple myomas after diagnostic look by laparoscopy

Results:

Postoperative analgesics was much less after laparoscopy than after laparotomy.

A higher (proportion of patients was analgesic free on day 1, discharged from hospital by day 2

The conception rate after LM was 56.5%. They didn't observe any increased incidence of fetomaternal morbidity or severe pregnancy and labour related complications. There was no uterine rupture after LM in their group.

We had 8 cases (27.2%) spontaneous abortions, one case (0.28%) ectopic pregnancy, Only 4 patients (15.5%) had vaginal deliveries, whereas 24 (84.5%) underwent cesarean section.

These results suggest that lap. Myomectomy LM significantly improves pregnancy outcome in patients with subserous or intramural fibroids, probably removing a plausible cause of altered uterine contractility or blood supply

(59) Pelvic inflammatory disease, infertility & laparoscopy.

Prof. Hesham Abdel Fattah Salem,

Prof. of OB/GYN,

Alexandria University, Egypt.

Pelvic inflammatory disease is a dominant visitor of gyne. clinics. It is estimated that it counts up to 1 in every 60 patients in GPs office. It attaches 1.5 milion ladies in the USA. Most of the candidates are teenagers who are prone to future subfertility and ectopic pregnancies. Diagnosis of PID is still not an easy jop and it lays lots of stress on clinicians as the great value lies in early, not in late diagnosis .CDC have proposed a cluster of imperical, complementary and definitive criteria for diagnosing cases of PID. Laparoscopy is one of the 3 definitive criteria needed for this difficult diagnosis, and although it seems too invasive in this situation, it actually saves lots of potential cases of subfertility, ectopic pregnancies and chronic pelvic pains that outweighs its invasiveness.

Laparoscopic diagnosis of PID entitles observational and sample collection for bacteriological and other investigations. If it is compared with the other 2 definitive criteria namely bacteriologic samples from the cervical secretions endometrial samples and scanning tools detecting hydropyosalpinx, it is found to be the only definitive one.

Using laparoscopy also helps very much in treatment of these cases and also in protecting patients from future sequelae of this infection . Pus drainage ,early lysis of adhesions ,tubal state determination ,postoperative peritoneal drainage and antibiotic installation are some cornerstone pillars of managing these cases .

Examples of cases treated by laparoscopy with video clips are put in this presentation to elucidate the idea.

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FRIDAY, December 9th, 2011:

SESSION (16): (Salle A) (16.15-18.00)

MENOPAUSE & WOMEN'S HEALTH

(60) Menopause and Voiding Troubles.

* **Abdel Karim M. El Hemaly MRCOG-FRCS**, Laila A.S. Mousa MD,
Ibrahim M. Kandil MD & Ahmad G. Serour MD

Menopause and Voiding Troubles.

Voiding troubles are:

- 1-Urinary Incontinence (UI). Commonst.
 - 2-Polyuria & increased frequency.
 - 3-Nocturia. More than Once.
 - 4-Dysuria.
 - 5-Hematuria, Pyuria.....etc
 - 6-Oliguria and Anuria.
 - 7- Retention of urine.
- Urinary Incontinence (U.I).

It means involuntary escape of urine.

Types: (11 types.):

- 1- True urinary incontinence, continuance escape of urine due to a genito-urinary fistula.
- 2- Overflow U.I. seen in neurologically impaired patients.
- 3- Urge, and urge incontinence.
Urge means rapid and strong desire to void. It is due to an organic cause in the lower U. T. e.g., U. T. infection, stone tumor....etc.
If the person did not reach the toilet quickly, urine will leak (urge incontinence).
- 4- Stress Urinary Incontinence SUI (genuine, urodynamic SUI)
- 5- Detrusor Over activity, DO, Detrusor Instability, DI, Overactive bladder (OAB), Irritable bladder....
In this condition there is an abrupt and strong desire to void due to non-organic cause. Again if the person did not get to the toilet soon, urine will leak.
- 6 - Mixed U.I. is more common than SUI alone or DO (OAB) alone.
- 7- Nocturia. This means rising up at night, twice or more times. The woman may not be able to hold up, and the urine will escape; this can be seen in conditions e.g. unrecognized, & / or uncontrolled diabetes.
- 8- Nocturnal enuresis. This is a disease of childhood, but it may persist to adult life.

9- Functional U.I.

In this condition the patient feels the desire to void, but she is unable, or unwilling to reach the toilet to void, e.g., visual, physical, &/or psychological impairment.

10- Transient U.I.

Urine leaks when there is a generalized severe infection, fever, drugs, (alpha-sympathetic blockers), alcohol, delirium, severe fear...

11- Post voiding dribbling. Dribbling of urine occurs when there is a urethral diverticulum.

To understand Voiding Troubles we have to understand:

- 1- Micturition, patho-physiology.
- 2- Anatomy of the IUS, and Pelvic Support.
- 3- Effects of Menopause on Pelvic Organs.
- 4- General conditions and diseases and their treatment (whether drugs or surgery which can has an effect on the pelvic organs).

Micturition is 2 stages:

First stage before training, as the bladder fills, afferent stretch receptors travel along the pelvic para-sympathetic (S 2, 3 &4); then efferent Para-sympathetic impulses cause detrusor contraction pushing urine into the urethra, with simultaneous relaxation of the external urethral sphincter allowing voiding to occur. Second stage, after training, the mother starts to teach her child (12-24 months old) how to hold up himself till she puts him on a pan. This is gained by maintaining high alpha sympathetic tone at the internal urethral sphincter (IUS) keeping it closed all the time till proper social circumstances allow.

The IUS is a collageno-muscular tissue cylinder that extends from the bladder neck to the perineal membrane in both sexes.

In women it is intimately lying over the anterior vaginal wall.

Cumulative effects of childbirth trauma causing injury to the IUS and the vagina plus loss of ovarian steroid hormones support after menopause will lead to weakness of the IUS leading to SUI. It will also lead to weakness of the vagina with subsequent vaginal prolapse.

These new concepts have been proved by imaging and histopathology. Imaging of the IUS and the vagina was done using 3DUS and MRI.

References:

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Surgical Treatment of Stress Urinary Incontinence, Fecal Incontinence and Vaginal Prolapse By A Novel Operation

"Urethro-Ano-Vaginoplasty"

Gynaecologia Et Perinatologia, Vol19, No 3; 129-188 July-September 2010.

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(61) Management of Acute Menopausal Symptoms among Egyptian Women: Mansoura Experience.

El-Said Abdel-Hady, Reda Abdel-Hady Hemida, Anas Gamal, Hend Shalaby, Hosam Goda, Rafaat Abdel-Fattah.
Department of Obstetrics and Gynecology, Mansoura University, Mansoura, Egypt.

Objectives: To assess the efficacy, side effects profile, affordability, satisfaction and continuation rates of 4 regimens used in the management of acute menopausal symptoms in Mansoura, Egypt.

Patients and methods: This prospective non-randomised study included 352 women with acute menopausal symptoms. 4 regimens were offered based on the presence of the uterus, the contraindications to the use of estrogen and the financial background of women. A visual analogue scoring system was used to compare the efficacy and side effects in the 4 groups. 66 women with a uterus received sequential estrogen and progestin oral pills. 104 women received IM estrogen and androgen once monthly. 54 women received Tibolone 2.5 mg orally daily and 124 women (control group) received a phyto-estrogen containing oral pills.

Results: The median follow up period was 21 months. Sequential oral estrogen plus progestin and IM estrogen plus androgen were more effective in the treatment of acute menopausal symptoms than the control group ($p<0.01$). Continuation and satisfaction rates were significantly higher ($p<0.001$) with IM estrogen plus androgen. The side effects profile was significantly higher ($p<0.01$) among women using oral estrogen plus progestin. Tibolone was less effective in alleviating menopausal symptoms than estrogen containing regimens and had the shortest continuation rate.

Conclusion: Estrogen plus androgen IM injection is a cost/effective treatment of acute menopausal symptoms among Egyptian women.

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(62) Anti mullerian hormone and menopause prediction

Dr. Mahmoud Shawer, FRCOG

Egypt

AMH is produced by granulosa cells of small follicles between 2 and 7mm and is a good indicator for ovarian reserve as these sort of small follicles is greatly affected by deep sleep follicles (ovarian reserve). AMH is widely used in fertility to predict the woman's response to ovarian stimulation and recently used to predict menopause for fertility purpose too. In this talk I will discuss the accuracy of AMH in the prediction of menopause and the non fertility benefits of that, such as patients with benign conditions that may require surgery, like menorrhagia and fibroids. If AMH predicts menopause as imminent, medical treatment may be weighed against surgical interference – benefit/risk ratio - and a number of patients may escape surgery.

Therefore, AMH test before hysterectomy for benign conditions may be helpful.

(63) Endometrioma and ART.

**Dr. Omr El Megharbel,
Ismailia Medical Syndicate,
Egypt.**

(64) Differences in preoperative outcomes after laparoscopic management of benign and malignant adnexal masses

Mohamad S. Gad¹, Nabih I. El Khouly^{1,2}, Enrique Soto², Michael Brodman², Linus Chuang², Farr R. Nezhat³, Herbert F. Gretz²

1Faculty of Medicine, El Menoufiya University, Shipin El Kom, Egypt,
2Department of Obstetrics, Gynecology and Reproductive Science, Mount Sinai School of Medicine, 3St. Luke's-Roosevelt Hospital Center, New York, NY, USA

Objective: To compare the feasibility and safety of the laparoscopic management of adnexal masses appearing preoperatively benign with those suspicious for malignancy.

Methods: Retrospective study of 694 women that underwent laparoscopic management of an adnexal mass.

Results: Laparoscopic management of an adnexal mass was completed in 678 patients. Six hundred and thirty five patients had benign pathology (91.5%) and 53 (7.6%) had primary ovarian cancers. Sixteen patients (2.3%) were converted to laparotomy; there were 13 intraoperative (1.9%) and 16 postoperative complications (2.3%). Patients divided in 2 groups: benign and borderline/malignant tumors. Patients in the benign group had a higher incidence of ovarian cyst rupture (26% vs. 8.7%, $p<0.05$). Patients in the borderline/malignant group had a statistically significant higher conversion rate to laparotomy (0.9% vs. 16.9%, $p<0.001$), postoperative complications (1.9% vs. 12.2%, $p<0.05$), blood loss, operative time, and duration of hospital stay. The incidence of intraoperative complications was similar between the 2 groups.

Conclusion: Laparoscopic management of masses that are suspicious for malignancy or borderline pathology is associated with an increased risk in specific intra-operative and post-operative morbidities in comparison to benign masses. Surgeons should tailor the operative risks with their patients according to the preoperative likelihood of the mass being carcinoma or borderline malignancy.

Keywords: Laparoscopy, Benign, Malignant, Borderline, Adnexal mass

(65) Exploring the Male Youth Perceptions and Attitudes towards Sexual Harassment of Women in Egypt.

**Dr. Mona Hassan,
Mansoura University, Egypt.**

Sexual harassment, a relatively recent concept, has been globally recognized as a problem. According to the Egyptian Centre for Women's Rights (ECWR) ([2008](#)), a Cairo-based NGO, out of 1,010 Egyptian women surveyed, 83% said they had experienced sexual harassment. Nearly half reported being subjected to harassment on a daily basis, with abuses ranging from lewd comments to violent molestation. This high rate of harassment points to larger problems in the social structure. The issue of sexual harassment is blatant and needs to be more thoroughly explored from the perspective of those perpetrating the behaviour.

To address this gap in knowledge about male attitude and perception of sexual harassment of women, this exploratory study was done aiming to:

- 1) Explore youth perceptions of sexual harassment of women.
- 2) Examine attitudes of males regarding sexual harassment in the street.
- 3) Identify the reasons, or motivations for sexual harassment.
- 4) Provide recommendations for future plans to decrease the prevalence of such problem.

To achieve these aims, a qualitative research approach has been used. A sample size of 30 males age range; 18-24 years was studied using an in-depth interview

The result of the study will be presented in short pointing out to the most important finding.

FRIDAY, December 9th, 2011:

SESSION (17): (Salle B) (16.15-18.00)

OVULATION

(66) Polycystic ovaries and hirsutism.

**Prof. Duru Shah,
India.**

(67) The use of clomiphene citrates for ovulation induction in women with functional ovarian cysts.

1. Mohamed Salaheddin Abdrabbo. M.D. (1,2)
2. Mohamed Hussein Khalil. M.D. (1,2)
3. Mervat Sheikh Elarab Elseddek. M.D (1,2)
4. Ahmed Elagawany. M.S.(1,2)

Institutional affiliations:

1. Department of Obstetrics and Gynecology, Faculty of Medicine, Alexandria University.
2. Shatby maternity university hospital.

Objective: To evaluate the effect of clomiphene citrates (CC) on inducing ovulation and on cyst persistence and size in women with functional ovarian cysts.

Study Design: Randomized controlled trial.

Setting: University maternity hospital.

Subjects: 60 women in 2 equal groups.

Methods: Clomiphene citrates treatment, follicle scanning, hormonal assay.

Main outcome measures: Ovulation rate, pregnancy rate, cyst persistence, changes in cyst size.

Results: CC increased both ovulation and pregnancy rate in women with functional ovarian cysts (56.7% versus 13.3%, $p < 0.000$ for ovulation and 23.0% versus 6.7% $p < 0.000$ for pregnancy). CC also increased cyst persistence rate especially in cases achieving pregnancy (30% versus 6.7%, $p < 0.000$) but did not increase the size of the cyst, or cause complications in it.

Conclusion: Clomiphene citrates significantly increased ovulation, pregnancy and cyst persistence rates in women with functional ovarian cysts.

(68) **Basal serum FSH, Estradiol, LH, Anti-Müllerian hormone and antral follicle count in the prediction of poor ovarian response to controlled ovarian hyperstimulation in ICSI cycles**

Eman Ali,² Gamal Serour,^{1,2} Mostafa Hegab,¹ Mervat Mohamed,² Serag Mansour,² Khaled Kasim³

¹ Obstetrics and Gynecology department, Faculty of Medicine, Al-Azhar University, Cairo, Egypt.

² The international Islamic Centre for Population Studies & Research, ART Unit, Azhar University, Cairo, Egypt

³ Community Medicine and Public Health department, Faculty of Medicine, Al-Azhar University, Cairo, Egypt.

Objectives: The study aimed to evaluate the value of basal serum follicle stimulating hormone (FSH), estradiol (E2), leutinising hormone (LH), Anti-Müllerian hormone (AMH) and antral follicle count (AFC) in the prediction of poor response to controlled ovarian hyperstimulation (COH) in ICSI cycles and to examine the predictive accuracy of these factors.

Methods: A total of 250 primary infertile women were prospectively included. Basal (day 3) serum FSH, E2, LH and AMH and antral follicle count were measured. All women were submitted to long protocol and were aged from 35- < 40 years, BMI \leq 30 kg/m², day 3 FSH < 10 IU/ml with no uterine and ovarian pathology and/or anomalies. Full data were collected from all studied women. The poor responders were defined as those patients with E2 less than 300pg/ml and/or follicles (in both ovaries) less than 3 at day 10 of stimulation. Normal and poor responders were compared and the predictive value of FSH, E2, LH, AMH levels and AFC were evaluated by appropriate statistical analyses.

Results: The poor ovarian response rate was 6% (15 of 250). Predictive regression analysis revealed that AFC, AMH and FSH were factors to predict poor response with the most accurate predictors were AFC and AMH. The area under the curve to discriminate poor response was 0.98 for AFC and 0.96 for AMH. The sensitivity and specificity for prediction of poor ovarian response were 93% and 99% for AFC and 80% and 93% for AMH at the cutoff values of \leq 4 and \leq 1.1 ng/ml, respectively. The predictive accuracy of FSH, however, was adequate only at higher threshold levels.

Conclusions: AFC and AMH are the most accurate predictors of poor ovarian response and facilitate determination of the optimal strategy for controlled ovarian hyperstimulation.

Key words: Antral follicle, AMH, COH, Estradiol, FSH, ICSI, LH.

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(69) Metformin co-administration during controlled ovarian hyper-stimulation in ICSI cycles for women with PCOS significantly increase the number of mature eggs: randomized controlled study.

Dr. Ahmed Fawzy Galal,

Lecturer of ob & gyn, Division of reproductive Medicine & infertility, Alexandria University, Alexandria, Egypt.

Objectives: to evaluate the effect of co-administration of metformin to HMG induction protocol in cases of PCOS undergoing ICSI Primary outcomes include number of oocytes retrieved, number of good quality oocytes. secondary outcomes include: Gonadotropins dosage and duration of induction ,fertilization rate, number of embryos and theirs grades, Pregnancy rate that includes both chemical and clinical pregnancy rates, OHSS incidence, the follicular level of VEGF.

Material and methods: A prospective randomized controlled study included 40 women recruited from the infertility unit of El -Shatby Maternity University hospital after IRB approval.

Patients allocated as two groups, Group A, Induction of ovulation done by HMG ampoules alone using a dose of 225 IU / day and tailored according to patients response starting from the second day of the natural or induced menstrual flow .

Group B , Induction of ovulation done by using HMG ampoules in a dose of 225 IU /day tailored according to patients response plus Metyformin 1500 mg /day starting from the third day of the natural or induced menstrual flow till the day of HCG administration .

Results: a significant higher number of oocytes collected and a significant improvement in the quality of the oocytes retrieved. A significant reduction in the incidence of OHSS was reported as well as a significant reduction in the level of follicular VEGF with the treatment of metformin was observed.

On the other hand, metformin has non significant effects on the course of ovarian stimulation regarding both gonadotropins dosage and duration of stimulation; also it was shown that a non significant effect on fertilization rate, pregnancy rate, and the number and quality of embryos was observed if metformin was added to HMG for ovarian induction.

Conclusion: short term metformin coadminstration significantly improved the quality of oocytes retrieved together with a significant reduction of the incidence of OHSS Support none.

(70) The Prognostic Value of Morphological Variations in Granulosa cells obtained from patients with endometriosis participating in programs of In –Vitro Fertilization (I.V.F).

Afaf A.Ismail (M.D.) -Hanaa El-Ebeissy(M.D.), Abdel Hamid Wafik*(M.D.) & Amara I.Kamel(M.D.)

Obstetrics &Gynecology Department (Faculty Of Medicine) And

*Pathology Department-Al-Azhar University

Objective:

To study the prognostic value of morphological variations in granulosa cells obtained from patients with endometriosis participating in programs of (I.V.F.& E.T.)

Design:

Prospective clinical study.

Patient and methods:

- Twenty six patients complaining of infertility were recruited from I.V.F.&E.T. centers.
- The granulosa cells of retrieval and aspirated oocytes of 26 women who underwent I.V.F.& E.T. procedure were separated and collected for histological examination by light microscopy.
- The patient were divided into 2 groups:-
 - Group 1 (n=10) control group as female factor was excluded.
 - Group 2(n=16) included patients with endometriosis.
 - The range of ages for both group was from 25-39 years.
 - Written informed consent was obtained from all patients.

Results:

- In control groups, 6/10(60%) got successful pregnancy.
The follicular cells revealed the normal morphological characteristic features.
- In Endometriotic group, 4/16(25%) got pregnant.
Abnormal follicular cells were seen with increase of morphological variations.

Conclusions:

The present work has shown:

- The existence of a number of major structural variations between normal granulosa cells and those obtained from women above 35 years old and women suffering endometriosis.
- Morphological variations of granulosa cells may play a role in infertility and subsequent failure of I.V.F.& E.T.
- Methods that measure apoptosis in human granulosa cells can be used as diagnostic tool for screening female infertility.

Key words:

- Granulosa cell morphological variations.
- I.V.F.&E.T. outcome in infertile women with endometriosis.

FRIDAY, December 9th, 2011:

SESSION (18): (Salle C) (16.15-18.00)

BASIC RESEARCH (Prize Session)

(71) Can pre-operative measurements of apoptosis predict the outcome of varicocele repair?

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Objectives: To identify and understand the predictors of successful varicocelectomy? Whether apoptosis contribute to the infertility in patient, with varicocele; and can apoptosis level predict the outcome of varicocele repair?

Methods: A total of 112 patients with history of infertility for more than one year, abnormal semen parameters and clinically diagnosed bilateral varicocele, underwent subinguinal varicocele ligation under optical magnification with sparing of testicular artery and lymphatics. Pre-operative evaluation of the percentage of apoptotic sperms were performed using Annexin-V staining assay that detects the outer surface of the plasma membrane of apoptotic spermatozoa.

Results: In patients with highly positive Annexin-V staining (more than 25% apoptotic sperms), the average increase in the total sperm count and progressive sperm motility, one year after varicocelectomy, are 120.6 and 60.2 % respectively. These postoperative changes were statistically significant as compared to the preoperative values. Two years after operation, 44 out of patients (80%) achieved conception and had live births.

In 19 patients with bilateral varicoceles (3rd degree) with negative Annexin-V staining (Less than 10% of apoptotic sperms), 10 patients (53%) showed an improvement in sperm counts, 11 patients (57%) had improved motility; while 9 patients (48%) had improvement in sperm morphology. 4 pregnancies were recorded among the 19 patients, with complete follow up (22%).

In 10 patients with bilateral varicoceles (1st degree) with negative Annexin-V staining there was no change in post-operative sperms morphology, concentration or motility. There was no difference between the pre and postoperative sperm quality.

Conclusion: Pre-operative measurements of apoptosis may predict the outcome of varicocele repair. The percentages of apoptotic sperms were inversely related to an increase in sperm concentration and motility with decline in the percentage of the abnormal morphology after varicocelectomy.

(72) C-Jun NH₂-terminal Kinase (JNK-) inhibitors reduce induced endometriosis in baboons: an assessor-blind placebo-controlled randomized study

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Abstract

Objectives: To test the hypothesis that c-Jun NH₂-terminal Kinases (JNKs) inhibitors can reduce endometriosis in a baboon model with induced endometriosis.

Design: Prospective randomized, placebo-controlled study in nonhuman primates

Methodology: Laparoscopic induction of endometriosis was performed in 20 baboons using intrapelvic seeding of menstrual endometrium inside the pelvic cavity. Fifty days after induction, a pretreatment videolaparoscopy (baseline disease assessment) was performed. The type, surface area and volume of endometriotic lesions (typical, red, white, or suspicious) were recorded and the revised ASRM score and stage were calculated. All 20 baboons were then randomized into 4 groups and treated for a total duration of 60 days. They received banana (placebo, n=5), 20 mg/kg JNK inhibitor orally (JNKI, n=5), JNKI + 10mg Medroxy progesterone acetate (MPA) orally (n=5), Cetorelix acetate (GnRH antagonist) 3 mg per baboon every three days, subcutaneously. A posttreatment videolaparoscopy was performed 60 days after the start of medical treatment in all groups. Menstrual cycle length, serum hormonal concentration and ectopic endometrial biopsies were recorded before and after treatment. Data were analysed with nonparametric statistics.

Results: When compared to the placebo group, baboons treated with JNKI, with JNKI + MPA, or with Cetorelix showed a statistically significant reduction of the total surface area ($p=0.03, 0.02, 0.02$) and volume ($p=0.01, 0.01, 0.01$) of endometriotic lesions after treatment when compared to their pelvic status before treatment. These data were confirmed when red lesions were analyzed separately. Remodelling of red active lesions into white lesions was observed more frequently ($p<0.05$) in baboons treated with JNKI + MPA than in baboons treated with JNKI only.

Conclusion: Treatment with JNKI was as effective as JNKI with MPA or GnRH antagonist cetrotide in reducing the surface and volume of induced endometriosis in the baboon, but without any significant effect on cycle length or on serum reproductive hormones, and without significant side effects.

Key words: JNK, endometriosis, baboons

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(73) Gene therapy of Human Endometrium: Transductional and transcriptional targeting of adenoviral vectors to endometrial cells

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Background: Gene therapy is a promising treatment that has recently expanded in scope from malignant to benign diseases. Adenovirus, a commonly used gene transfer vector, shows superior in vivo gene transfer but wild type virus has a promiscuous tropism. In this study we examine the transduction of human endometrial stromal cells by a panel of fiber modified and promoter modified adenoviral vectors.

Methods: Endometrial stromal cells were established from the endometrial lining of hysterectomy specimens performed for benign indications. Liver tissues were taken from donors during hepatic transplantation surgery. Human endometrial stromal cells and liver tissues were transfected by targeted adenoviral vectors expressing luciferase reporter gene. Luciferase activities mediated by each virus in endometrial cells or liver slices were measured by chemiluminescence. Measurements were made in duplicate and were normalized to total proteins produced by transfected cells. Reporter gene activity mediated by each modified adenovirus was compared to that of the wild type (Ad5-CMVluc) using The 2-tailed Student-t test.

RESULTS:

A) Normal endometrial stromal cells:

- 1- At a viral concentration of 10 pfu/cell, the adenovirus-RGD (Ad-RGD-luc) (P=0.007), Adenovirus sigma (Ad-sigma-luc) (P=0.01), adenovirus 5/3 (Ad-5/3-luc) (P=0.005), adenovirus under secretory leukocyte protease inhibitor promoter (Ad-SLPI-luc) (P=0.02), and adenovirus under heparanase promoter (Adheparanase-luc) (P=0.02) showed significantly higher gene transfer and expression levels, compared with the adenovirus serotype 5 (Ad5-CMV-luc).
- 2- At a viral concentration of 50 pfu/cell: Ad-RGD-luc (P<0.001), Ad-sigma-luc (P=0.003) and Ad-SLPI-luc (P<0.001) maintained higher gene transfer and expression compared to wild type.

B) In liver tissues Ad-survivin-luc and Ad-heparanase-luc mediated significantly lower reporter gene activity, compared with adenovirus serotype 5.

CONCLUSION: Adenovirus with heparanase promoter driving transgene expression (Ad-heparanase-luc) ,at MOI of 10 pfu/cell, exhibited high reporter gene expression in endometrial cells but minimal activity in liver tissues i.e. an “endometrial tissue on, liver off” phenotype and so, is promising as a potential vector for adenovirus-based gene therapy of the human endometrium.

Key words

Adenovirus-Targeting-endometrium-Gene therapy

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(74) Evaluation of the developmental competence of isolated ovarian follicles following vitrification

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Objectives: The main objective of this study was to compare the different outcomes of vitrification and slow freezing of isolated pre-antral follicles and to evaluate the different cryo-devices for vitrification of isolated pre-antral follicles. Moreover a simple method for preparation of isolated ovarian follicles for transmission electron microscopy (TEM) using transwell inserts is described.

Design: Experimental study.

Interventions: Pre-antral follicles were isolated from mouse ovaries and cryopreserved using vitrification and slow freezing.

Materials and methods: B6D2F1 14-18 days old pups were used in this study. A preliminary experiment was carried out to select the optimal cryo-device for vitrification of isolated follicles. A total of 414 isolated pre-antral follicles were randomly distributed among 4 groups; control (CT) fresh (n=100), nylon mesh (n=96), electron microscopy grid (n=102), and micro-capillary tips (n=116). Subsequently, a total of 979 isolated pre-antral follicles were randomly assigned to 3 different treatment groups; CT fresh (n=256), vitrification (n=399) and slow freezing (n=324). CT and cryopreserved/thawed follicles were then cultured *in vitro* and examined daily for development. Final maturation was triggered with hCG and rates of oocyte maturation were calculated. The ultra-structure of cryopreserved/warmed follicles was studied using electron microscopy. Meiotic spindle presence and organization in metaphase II oocytes were examined using the Oosight imaging system.

Results: The micro-capillary tips resulted in poor immediate post warming survival but no differences were observed in the subsequent *in vitro* development characteristics between the different cryo-devices. The nylon mesh proved to be the easiest carrier, particularly when large numbers of follicles were to be vitrified. Compared to vitrification, slow freezing resulted in a significantly lower number of intact follicles at the end of the culture period ($P<0.0001$). However all other outcome measures were comparable between both cryopreservation techniques.

Conclusions: Isolated pre-antral follicles were more vulnerable to cryodamage after slow freezing as compared to vitrification.

Key words: preantral follicle, vitrification, IVM, meiotic spindle retardance, ultra-structure

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(75) Comparative study between the effects of metformin monotherapy in obese and non-obese patients with polycystic ovary syndrome

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Objective: To compare the efficacy of metformin monotherapy in improvement of the clinical and biochemical parameters, ovulation and pregnancy rates in obese and non obese patients with polycystic ovary syndrome.

Design: A prospective comparative study in Minia University infertility clinic.

Patients and Methods: One hundred infertile women were diagnosed as clomiphene citrate resistant polycystic ovary syndrome at the period starting from November 2009 to August 2010. The patients were divided into 2 group's. Group (O); included 50 patients with BMI ≥ 30 kg/m². Group (N); included 50 patients with BMI ≤ 30 kg/m². Both groups received metformin 850 mg tablet twice daily for 12 weeks. The primary outcomes were the ovulation rate, the degree of menstrual regularity, the change of the patients' clinical and biochemical profile after three months of metformin treatment; including the changes in LH/FSH ratio. The secondary outcome was the pregnancy rate.

Results: There was a statistically significant improvement as regards pre- and post-treatment among both groups concerning regularity of the cycle, acne and LH:FSH ratio and no statistically significant improvement in hirsutism. There were no statistically significant differences between the two groups concerning the ovulation and pregnancy rates after treatment.

Conclusions: Metformin alone may be an effective drug for restoration of menstrual regularity, LH: FSH ratio, treatment of acne, inducing ovulation and increase pregnancy rates in clomiphene citrate resistant polycystic ovary syndrome. Non obese patients responded better but statistically non significant than obese patients. Further randomized controlled studies on large number of patients are required to compare efficacy of metformin in obese and non obese PCOS patients.

Key Words: Metformin, Polycystic ovary syndrome, Obesity.

(76) Endometrial scratching to improve pregnancy rate in couples with unexplained subfertility: A randomized controlled trial

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Backgrounds: Endometrial scratching had been suggested to improve reproductive performance. The objective of this trial was to examine the effect of endometrial scratching in women with unexplained infertility.

Methods: Randomised controlled trial conducted in Mansoura University Teaching Hospital and a private practice setting. 105 couples with unexplained infertility were randomly allocated into two groups; Group (A) comprised 54 women underwent endometrial scratching in the luteal phase of a spontaneous menstrual cycle and group (B) included 51 women underwent a placebo procedure. The main outcome measured was cumulative clinical pregnancy rate after 6 months and miscarriage rate.

Results: Clinical pregnancy rate was significantly higher in the women experiencing endometrial biopsy than in the control group (27.1% and 8.9% respectively, $p=0.04$). There was no significant difference in miscarriage rate between pregnant women in the endometrial injury group and pregnant women in the control group (12.5% and 16.5%, respectively, $P = 0.79$).

Conclusions: Endometrial scratching may improve clinical pregnancy rates in couples with unexplained infertility. Adequately powered studies are mandated to confirm or refute the findings.

Key words: Unexplained- infertility-endometrium-scratching.

Trial registration:

ClinicalTrials.gov Identifier: **NCT01412606**

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