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Contents

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Oral Presentations

O -1 OVARIAN CONTROL OF LH SECRETION IN PCOS

Polycystic ovarian syndrome (PCOS) is the most common reproductive endocrinopathy in young women. The wide spectrum of clinical, hormonal and biochemical abnormalities of this syndrome cannot be explained on the basis of a single aetiologic factor. Serum basal LH levels as well as the LH/FSH ratio are elevated in the majority of PCOS women as compared to normally cycling women. Accelerated frequency and high amplitude of pulsatile LH release has been found in PCOS women, being responsible for the high circulatory LH levels. In addition, hyper-responsiveness of the pituitary to exogenous GnRH regarding LH secretion has been demonstrated in most patients with PCOS. The action of estrogen on GnRH pulsatility is multimodal and in PCOS women is not clear whether estradiol is implicated in increased GnRH secretion. Progesterone is the main arbiter of the decreased GnRH pulse frequency during the luteal phase. It has been shown recently that the enhanced LH sensitivity to GnRH during the periods of anovulation in PCOS women is not due to a reduced production but to a defect in the interaction of different ovarian factors on the hypothalamic-pituitary system. The primary causal defect in PCOS is probably located within the ovary.

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O - 2 Cryopreservation and transplantation of the ovary

It is our duty to evaluate the effects of specific cancer therapies on fertility and discuss fertility preservation options with young women requiring such treatment prior to its initiation.
The different cryopreservation options available for fertility preservation in cancer patients are embryo cryopreservation, oocyte cryopreservation and ovarian tissue cryopreservation.
The only established method of fertility preservation is embryo cryopreservation, but this requires the patient to be of pubertal age, have a partner, and be able to undergo a cycle of ovarian stimulation.

Cryopreservation of ovarian tissue is the only option available for prepubertal girls, and for woman who cannot delay the start of chemotherapy.

Forty cases of orthotopic reimplantation of cryopreserved ovarian tissue have so far been reported and 13 live births have been achieved, yielding a pregnancy rate of more than 25%. In our department, eight women have undergone orthotopic reimplantation of cryopreserved tissue either once or twice. Restoration of ovarian function, proved by follicular development and estradiol secretion, occurred in all cases. A time interval of 3.5 to 5 months was observed In the literature, pregnancies were naturally obtained in 50% of the cases. Graft activity was found to persist for

2.5 to 4 years. In non-pregnant patients, IVF was performed, but the quality of oocytes and embryos was not optimal.
Prognostic factors (age, previous chemotherapy) are therefore discussed.
With all the advances in ovarian tissue cryobanking and reproductive technology, fertility preservation is now a real possibility for patients whose gonadal function is threatened by radiotherapy or chemotherapy. For this reason, it should be a medicolegal obligation for gynecologists, oncologists and pediatricians to systematically propose cryopreservation before initiating cancer therapy that could impair future fertility

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O-3 Presentation on MEFS Journal

Bassam El Helw (Egypt)– Deputy Editor

O- 4 Effective Fertility Treatment

The effectiveness of fertility treatment is primarily dependant on three factors, namely the woman's age, the duration of infertility and whether the woman has been previously pregnant. These factors are, in most circumstances, more important than the actual clinical diagnosis and determine not only the outcome of treatment, but also the appropriateness and timing of intervention. Furthermore lifestyle, particularly obesity and smoking, is increasingly relevant, and can affect both fertility and the outcome of treatment.

Many interventions previously thought to be effective have now been shown in clinical trials to be no longer so, and illustrative examples will be discussed. *Effective* treatment increasingly implies a healthy pregnancy and baby, and interventions, such as multiple embryo replacement, which take risks with the health of the next generation, are no longer considered appropriate.

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O-5 Contoversis in the operation of myomas in infertile patients

Cihat Unlu (Turkey)

Abstract not received

O-6 Evidence base management of endometriosis-associated infertility

Hassan Sallam (Egypt)

Abstract not received

O-7 How we can predict implantation

Antonis Makarigianakis (Greece)

Abstract not received

O-8 Recurrent miscarriage and anticoagulant therapy

Unexplained recurrent miscarriage (RM), defined as at least 2 miscarriages with an upper gestational age of 20 weeks, occurs in 1 to 3 % of women trying to conceive and is extremely stressful for the couples concerned. There is general consensus through guidelines that the diagnostic workup should consist of selective karyotyping of both partners, a thrombophilia screen and a transvaginal ultrasound to detect or rule out uterine pathology.

Re treatment data are limited. In women with recurrent miscarriages and thrombophilia, anticoagulant treatment has been suggested to improve pregnancy outcome, although findings from available randomized trials have been inconsistent. Based on presumed similarities in pathogenesis between recurrent miscarriage associated with thrombophilia and unexplained recurrent miscarriage, aspirin and low-molecular-weight heparin are frequently prescribed in women with unexplained recurrent miscarriage, although data are lacking from randomized controlled trials to support this approach.

We investigated whether aspirin combined with low-molecular-weight heparin or aspirin alone, compared to placebo, improves the live birth rate in women with unexplained recurrent miscarriage.

Between February 2004 and January 2008, 364 women were included in the trial. The live birth rate did not differ between women assigned to aspirin combined with nadroparin (54.5%, absolute risk difference -2.6%, 95%CI -15.0 to 9.9; relative risk 0.96, 95%CI 0.76 to 1.19), aspirin alone (50.8%, absolute risk difference -6.2%, 95%CI -18.8 to 6.4; relative risk 0.89, 95%CI 0.71 to 1.13) and placebo (57.0%, reference).

In 299 women who became pregnant, the live birth rates were 69.1% (absolute risk difference 2.1%, 95%CI -10.8 to 15.0; relative risk 1.03, 95%CI 0.85 to 1.25), 61.6% (absolute risk difference -5.4%, 95%CI -18.6 to 7.8; relative risk 0.92, 95%CI 0.75 to 1.13), and 67.0% (reference) respectively. Side effects, most notably skin reactions, occurred more often in women assigned to aspirin and nadroparin.

In conclusion, aspirin combined with nadroparin and aspirin alone does not improve live birth rate relative to placebo in women with unexplained recurrent miscarriage and has not yet been proven to be effective in women with recurrent miscarriage and thrombophilia.

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O-9 The Role of r-FSH/r-LH in Follicular Development and the Genetics of the LH-Receptor.

It is well known that LH acts synergistically with FSH in the process of follicular growth: FSH plays a crucial role in recruitment, selection and dominance, while LH contributes to dominance maturation and ovulation . Moreover, studies in non-human primates have shown that LH may act by increasing intra-ovarian androgens, which in turn promote FSH responsive granulosa cell function. In addition, rLH pre-treatment may have a modest impact on subsequent ovarian responsiveness to FSH.

The ideal LH activity, administered as hMG, rLH or hCG in ART procedures, has not been determined yet. Serum LH levels of less than 1.5 IU/L have been proven insufficient to maintain aromatase activity and E_2 production. Low peri-ovulatory levels (<3 IU/L) in patients undergoing IVF are associated with impaired fertilization and increased early pregnancy loss. On the other hand, small doses of LH administered in early follicular phase during ovarian stimulation in IVF-ET cycles have a beneficial effect in the quality of oocytes, a fact of almost importance, especially in cases where few embryos are available for transfer. Actually, in poor responders, early LH administration during COH may have a beneficial effect on the maturity and fertilizability of oocytes, as well as the number of transferable embryos . However, combined LH and FSH activity administration did not yield increased pregnancy rates. In a recent meta-analysis of several randomized controlled trials, investigating the effect of rFSH alone or in combination with rLH in IVF/ICSI cycles, no evidence of a statistical difference regarding pregnancy outcome in patients where rLH was used was observed.

The primary aims of this presentation were to assess the evidence to support the use of r-hLH in the following groups:

- Unselected ART population
- ART patients with low endogenous LH levels
- ART patients with a suboptimal ovarian response to gonadotrophins
- ART patients who are over 35 years of age

The secondary endpoints were to record the effect of short-term pre-rFSH administration of r-LH and analyse the genetics of the LH receptor.

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O- 10 Ovarian Tumors: How to preserve fertility?

Borderline ovarian tumors account for 10 to 20 percent of ovarian epithelial tumors. They differ from typical ovarian cancers in that they do not grow into the ovarian stroma. Likewise, if they spread outside the ovary, for example, into the abdominal cavity, they do not usually grow into the lining of the abdomen. These cancers tend to affect women at a younger age than the typical ovarian cancers and are less lifethreatening than most ovarian cancers. Guidelines for surgical treatment of borderline ovarian tumors are similar to those for ovarian cancer and include hysterectomy with bilateral salpingo-oophorectomy.

However, patients with borderline ovarian tumors tend to be younger than women with invasive ovarian cancer. For many of these patients, fertility is an important issue. Previous studies have suggested that conservative surgery with unilateral salpingo-oophorectomy or cystectomy for patients with stage I borderline ovarian tumors could be safe. Despite infrequent data, this observation has been expanded to include women with advanced-stage disease. Recurrence is noted more often after this type of treatment, and is estimated between 8 and 15%, but does not seem to have a negative effect on survival. According to our series, cumulative pregnancy rates after IVF reach 44% in these situations. Management of conservative treatment (complete staging, cystectomy or oophorectomy, oophorectomy or adnexectomy) is still under debate, but could be proposed for carefully selected patients as a fertility preserving option. However, close follow-up is mandatory.

When ovarian preservation is impossible, oocyte/ovarian cryopreservation or emergency ovarian induction before the surgical procedure to obtain embryos are promising but still under evaluation.

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O- 11 Laparoscopic ovarian drilling in the treatment of PCOS

Adolfo Allegra (Italy)
Abstract not received

O- 12 Infertility and endometriosis. Cause or consequence?

Endometriosis is one of the most frequently encountered benign diseases in gynecology. It is the cause of pelvic pain (dysmenorrhea, dyspareunia) and infertility in more than 35% of women of reproductive age.

Complete resolution of endometriosis is not yet possible, but therapy has essentially three main **objectives:** (1) to preserve and improve fertility; (2) to reduce pain and (3) to delay recurrence for as long as possible.

Treatment of endometriosis-associated infertility has been investigated with medical and surgical therapeutic modalities, individually and in combination.

In moderate and severe endometriosis, a medico-surgical approach remains the gold standard.

The most important surgery in endometriosis-associated infertility is ovarian surgery (hemorrhagic cysts or endometriomas), but there are some concerns. Indeed, excessive surgery may lead to normal ovarian tissue destruction, while incomplete surgery is associated with a much higher risk of recurrence. More and more papers describe a low ovarian reserve after laparoscopic cystectomy for endometriomas. Indeed, very frequently, normal ovarian tissue is excised together with the endometrioma wall. Ovarian surgery in endometriosis patients should therefore be performed by experienced surgeons in order to both preserve and improve fertility. We very recently reported a laparoscopic procedure that combines the advantages, while avoiding the corresponding risks, of current techniques used in endometrioma surgery (cystectomy and ablative surgery). This new technique, called the 'combined' technique, will be described. Moreover, in severe pelvic endometriosis and/or recurrent endometriomas, normal residual ovarian tissue and/or ovarian vascularization may be compromised.

Preservation of ovarian tissue should therefore be considered in these patients with seriously impaired fertility, particularly before any treatment viewed as high risk for ovarian endometriosis recurrence.

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O- 13 Progesterone level and progesterone/estradiol ratio on day of hCG administration: detrimental cut off levels and new treatment strategy

Objective: to identify if there are certain cutoff levels for P and or P/E2 ratio on day of hCG, which would be defined as detrimental for occurrence of pregnancy, in women with normal ovarian reserve. Moreover, the study also aims to test the hypothesis that the detrimental effects, if present, might differ according to the developmental stage of the embryos transferred.

Design: Prospective cohort study

Participant(s): 240 Women, with normal ovarian reserve undergoing ICSI cycles using long agonist protocol. All of them had at least four good quality embryos available for transfer on day 3 after retrieval. They were randomly assigned to undergo either cleavage stage ET on day 3 (group A, 120 women) or had extended culture, for their embryos, and had undergone blastocyst stage ET on day 5 (group B, 120 women).

Intervention(s): a receiver operator characteristic (ROC) analysis was performed to search the most efficient cutoff values for progesterone and P:E2 ratio which could discriminate between successful and unsuccessful ICSI outcome, among women with day 3 ET. Cycles were grouped according to these detrimental cutoff levels and analysis was performed separately for the day 3 and the day 5 subgroup.

Main Outcome Measure(s): Clinical pregnancy (CP) was the main outcome. Serum E_2 levels on day of hCG, number of oocytes retrieved and fertilization rates were the secondary outcome measures.

Result(s): Detrimental cutoff levels for P & P/E2 ratio were **>**1.5 and > 0.55 respectively, for not achieving pregnancy, with a sensitivity of 84% & 82% and specificity of 45% & 45% respectively.

The area under the ROC curve was 0.673 (95% CI = 0.576 to 0.770) for P and 0.661 (95% CI = 0.564 to 0.757) for P/E2 ratio. For day 3 ET, patients with P ≤ 1.5 ng/ml had significantly higher CP than those with progesterone levels **> 1.5** ng/ml (57.8% versus 24.3%; P = 0.001; RR = 2.38; 95%CI = 1.31 to 4.32) and patients with P/E2 ratio ≤ 0.55 had significantly higher CP than those with ratio>0.55 (57.3% versus 26.3%; P= 0.002; RR = 2.18; 95%CI = 1.24 **to** 3.83). On the contrary, the P and P/E2 cutoffs had no effect on pregnancy outcome in the blastocyst subgroup. For day 3 ET, multivariate regression analysis was done to assess which factors should be of prior importance for prediction of pregnancy. P/E2 ratio was the only independent predictor for pregnancy (P = 0.008; OR = 0.066; 95%CI = 0.009 to 0.498)

Conclusions: For women with normal ovarian reserve undergoing day 3 ET, Serum progesterone levels of >1.5 ng/ml and P/E2 ratio> 0.55, on hCG day, are associated with lower clinical pregnancy rates. However, the P/E2 ratio was the only independent prognosticator for the cycle outcome. On the contrary, on day 5 ET, neither P nor P/E2 cutoff levels had detrimental effect on the pregnancy outcome.

Key words: Premature luteinization / intracytoplasmic sperm injection / GnRH agonist / clinical pregnancy rate.

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O- 14 Recent advances for the endoscopic treatment of Endometriomas: "which technique is superior?

TREATMENT of the ENDOMETRIOSIS

Endometriosis is one of the most common gynecologic disorders and is significantly more prevalent in the setting of

Infertility. The exact incidence of endometriosis is unknown give limitations of diagnosis. Approximately 3-10% of reproductive aged women, 25-35% of infertile women, 2-5% of postmenopausal women, and 40-60% women with pelvic pain are afflicted with endometriosis. Other risk factors include early menarche and shortened cycle length. Ethnicity also may play a role with a higher risk among Asian women. Alcohol and caffeine are also risk factors.

Endometriosis Treatment

- Medical Treatment
  - Established Medical Treatments
  - Experimental Treatments
- Surgical Treatment
  - Conservative
  - Radical

Established Medical Treatments

- Oral Contraceptives
- Progestins
- Danazol
- NSAIDs
- GnRH analogues

Experimental Treatments

- RU486 (mifepristone) and SPRMs
- GnRH antagonists
- TNF-a Inhibitors
- Angiogenesis Inhibitors
- MMP Inhibitors
- Immunomodulators
- Estrogen Receptor-b Agonists
- Aromatase Inhibitors

Surgical Treatment

The surgeon who performe endometriosis surgery can handle with these complex endometriosis operations either open access or laparoscopically.

- Extensive peritoneal dissection
- Cul-de-sac and rectovaginal dissection
- Resection of invasive bowel endometriosis
- Appendectomy
- Treatment of invasive ovarian endometriosis and endometriomas
- Oophorectomy
- Removal of tubal endometriosis
- Resection of bladder endometriosis
- Resection of ureteral endometriosis
- Removal of uterine endometriosis
- Uterosacral nerve ablation
- Presacral neurectomy
- Laparoscopic hysterectomy (LAVH, LH or TLH)
- Adhesiolysis

Surgical Principles in the treatment of endometriosis

- Knowledge of disease and treatment modalities
- Experienced surgeon
- Adequate facilities, personnel and equipment
- Appropriate patient selection
- Informed consent
- Proper patient position
- Careful pelvic evaluation

- Maximum exposure
- Use of magnification
- Minimum tissue trauma
- Excellent hemostasis
- Removal of all diseased tissue
- Avoidance of foreign body material
- Confirmation of tissue pathology

A variety of treatment options have been developed over the years to combat endometriosis. The key to developing a rational approach to the treatment of endometriosis is a through understanding of the pathogenesis and pathophysiology of the disease. In the absence of a general agreement on these issues, it should be of no surprise that therapeutic approaches have been to diverse.

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O- 15 Stiking new updates on male infertility

Results of ICSI with ejaculated sperm compared to epididymal sperm (MESA) and testicular sperm (TESE)

Objective: To determine the relative impact of the degree of spermatogenic defect, of sperm origin (testis, epididymis, or ejaculate), on embryo quality or pregnancy rates with ICSI.

Design: A prospective series of unselected consecutive IVF cycles in one center where all cycles are performed with ICSI (whether the male has azoospermia, oligospermia, or completely normal spermatogenesis).

Materials & Methods: 719 consecutive cycles of ICSI with sperm retrieval were performed for azoospermic men. A careful distinction was made between obstructive azoospermia (OA) with normal spermatogenesis and non-obstructive (NOA) who of course had the most severe spermatogenic defect. During the same time interval, 1,849 consecutive cycles of ICSI were performed using ejaculated sperm for couples with normal spermatogenesis as well as with varying degrees of male factor defects, for a total of 2,568 consecutive, unselected IVF cycles that exclusively employed ICSI.

Results: Both the age of the wife and the number of eggs retrieved had the greatest effect on pregnancy and delivery rate for every sperm category evaluated. There was no significant difference in delivery rate with any of ejaculated sperm categories, whether less than 2 million per ml, greater than 20 million per ml, or even normal donor sperm. There was also no difference in results whether MESA or TESE derived sperm were fresh or frozen. Testicular sperm, whether there was normal spermatogenesis (OA) or if there was a severe defect in spermatogenesis (NOA), gave the same result, but results with testis sperm were significantly poorer than that achieved with epididymal sperm or ejaculated sperm.

Conclusions: The degree of spermatogenic failure has no impact on pregnancy or delivery rate with ICSI. However, epididymal sperm and ejaculated sperm gave consistently better pregnancy

and delivery rates with ICSI than testicular sperm. There may be some aspect of sperm maturation which occurs when sperm leave the testis that is beneficial for ICSI.

The genetics of male infertility and the extinction of the dinosaurs

Our research focuses on the genetics of male infertility, in particular the role of the Y chromosome. The sequence of the Y reveals that the Y contains 60 genes that are predominantly or exclusively expressed in testis. As a consequence, these genes are all likely to act together in determining each man's sperm count.

Indeed several deletions on the Y have been shown to negatively affect sperm production. Currently, a total of seven recurrent interstitial deletions have been described on the human Y chromosome, each affecting many different testis-specific genes: AZFa, P5/proximal-P1, P5/distal-P1, AZFc, b1/b3 gr/gr and b2/b3 deletions. For all these deletions we have determined the size, genetic content and deletion mechanism (Kuroda-Kawaguchi, et al., Nat. Genet. 2001, Repping et al., AJHG 2002, Repping et al., Nat. Genet. 2003, Repping et al., Genomics 2004).

Our study of the molecular genetics of human male infertility helped to elucidate the evolution of X and Y chromosomes. The study of thee sex chromosomes surprisingly has also helped to clarify a likely mechanism for dinosaur extinction.

There have been many claims in the popular press of "discoveries" on how the dinosaurs went extinct. But these claims all relate to climate change events that occurred 65 million years ago. None have explored the biology of how so many animals escaped extinction while the dinosaurs and at least half of all other species did not. Possibly the evolution of sex chromosomes holds the answer to this question.

Our studies suggest that the default mechanism for determining the sex of offspring is temperature of egg incubation, but that genetic sex determination based on sex chromosomes (like X and Y) has evolved many times over in different ways, in different genera, as a more foolproof method than temperature variation of assuring a balanced sex ratio in offspring. The absence of such a genetic sex determination system 65,000,000 years ago, resulted in a preponderance of male dinosaurs, and consequentially a rapid decline in population.

The evolution of the X and Y chromosomes has been elucidated via our studies of the molecular genetics of male infertility. Unexpectedly, study of these sex chromosomes has also clarified this probable mechanism of dinosaur extinction. Genetically based sex determination mechanisms have evolved to ensure a balanced male-female ratio. This temperature-independent determinant of gender was unavailable to crocodilian reptiles, like the dinosaurs.

Mammals, birds, snakes, most lizards, most amphibians, flying insects, and some fish employ specific "sex-determining" chromosomes or genes to determine the sex of the embryo. In mammals, this is the SRY gene on the Y chromosome of the male. This mechanism is generically termed "GSD," for "genetic sex determination." However, crocodiles and alligators, some lizards, and many fish employ environmental or temperature-dependent sex determination (TSD). This means that there is no genetic predetermination of gender. It is merely the temperature at which the early embryos are incubated that determines whether the primitive gonad will become a testis or an ovary.

Various modes of genetic sex determination (GSD) have evolved many times, independently over and over again in the history of life on earth. There is no similarity of the Y chromosome, i.e., the sex-determining "trigger" gene (SRY) in mammals, snakes, birds, lizards, or Drosophila. Each of these genera employ an entirely different sex determining trigger gene that evolved separately and completely independently over and over again.

Temperature determination of sex (TSD) is the primordial mechanism that triggers either testicular or ovarian development in the early embryo. Genetic determination of sex (GSD) evolves repeatedly as an overlay. Why should evolution favor such a mechanism?

Animals not using this mechanism may be at risk of rapid reproductive failure due to a skewed sex ratio favoring males in response to sustained environmental temperature change. This hazard favors over and over again the evolution in all genera of animals with sex-determining genes. However, the disadvantage of an evolving male sex determining chromosome is its eventual decay caused by non-recombination and the subsequent loss of spermatogenesis genes, i.e., male infertility, as we see in our azoospermic and oligospermic patients.

Despite the protection that GSD affords a species from global temperature shifts, male infertility is increased because of the accumulation on the Y chromosome of a dense concentration of spermatogenesis genes in a region that is chromosomally unstable because of failure of recombination.

Dr. Sherman Silber

O-16 HPV and Female Reproductive Performance

Human papillomavirus (HPV) is a very common sexually transmitted infection. There are more than a hundred types but not all of them infect genital areas. HPV has been linked to the causation of cervical cancer as well as other cancers. Only high risk types are linked to cancer causation and type 16 and 18 are responsible for more than two thirds of cervical cancer cases. Other low risk types are known to cause condyloma accuminata; essentially type 6 and 11. Being sexually transmitted can be a marker of other infections that are likely to affect female fertility. The premalignant cervical intra-epithelial neoplasia (CIN) has been associated with suboptimal pregnancy outcome that is independent from the effect of CIN treatment

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O-17 Changing attitudes in Ovarian stimulations

Clomiphene citrate is traditionally given from the 3rd-5th day of the cycle for five days as an ovulation induction drug. This is usually followed by hMG injections till follicles reach maturity. In this presentation, we propose a to reverse this attitude: to start with hMG followed by Clomiphene citrate. Clomiphene citrate has mainly anti-oestrogenic effects as well as some oestrogenic effects. Clomiphene citrate competes with oestrogen for oestrogen receptor binding sites at

hypothalamus, pituitary, ovary, endometrium, vagina and cervix. As a feedback mechanism, it stimulates the secretion of follicle -stimulating hormone (FSH) with growth of the Graffian follicles. When serum estradiol reaches certain level, LH surge is released. Of the cycles stimulated by clomiphene citrate + human menopausal gonadotrophin, an endogenous LH surge was observed in more than 15% of the patients shortly prior to the HCG injection. In experimental studies, clomiphene citrate prevented the positive effects of estradiol required to induce an LH surge. The hypothesis behind this study is that if CC is given after hMG , the anti-oestrogenic effect will suppress LH surge

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O- 18 OVARIAN STIMULATION: SUPPLEMENTATION WITH EXOGENOUS LH

The two gonadotrophins are important regulators of final stages of normal follicular maturation in humans. Follicle stimulating hormone (FSH) and LH collaborate for the production of the steroids in the context of the two-cell two-gonadotrophin theory. The FSH intercycle rise is responsible for the recruitment and selection of the dominant follicle. Following selection, the follicle becomes dependent on LH. In IVF programmes, the ovarian stimulation results in the development of multiple follicles and in supraphysiological levels of estradiol and inhibin in blood leading to the suppression of endogenous gonadotrophin secretion. Cycles in which only gonadotrophins are used with no agonists or antagonists, endogenous LH secretion is reduced and LH levels in blood decrease markedly. Nevertheless, it is possible that, under these conditions there is adequate residual LH in the circulation for the production of high amounts of estradiol. When a GnRH antagonist is injected, the suppression of endogenous LH is not greater than that when gonadotrophins are used alone. The suppression can be greater when a GnRH agonist is given in a long protocol. To maintain adequate amounts of LH in the circulation, milder ovarian stimulation protocols, lower dosages of the GnRH agonists or LH supplementation are recommended. Recent studies have not shown that the use of exogenous rLH improves the treatment outcome in terms of live birth rate. However, an advantage of HP-HMG over rFSH regarding live birth rate has been shown in recent meta-analyses. An absolute indication for the use of rLH in combination with rFSH is infertile women with hypogonadotrophic hypogonadism. Possible benefits are also provided by the supplementation of FSH with exogenous rLH in poor responder women. Further prospective randomized trials are required to study the role of rLH supplementation during ovarian stimulation.

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O- 19 can the Vitrification procedure the right tool for fertility preservation in women with cancer?

As the efficacies of anticancer therapies were increase and quite efficient early diagnoses have been taken place in gynecological cancer, increased long-term survival of cancer patients and long-term complications of anticancer treatments are being encountered (1). The lost of ovarian reserve or function due to gonadal toxicity is one of the major problem that mainly focused.

A wide range of new fertility preservation options and/or techniques, although the majority of them are experimental, are now available prior to oncological treatments in female gamete preservation (2). Ovarian transposition, a surgical preservation technique, is one of these methods that avoid the gonadal tissue from radiation field in order to prevent the gonadal toxicity of radiotherapy. Partial and/or total (experimental) extraction, subsequent cryopreservation and re-transplantation of ovarian tissue, another surgical preventive option both for radiotherapy and chemotherapy side-effects, is expected to be a paramount method in the future that was performed in selective cases previously (2-4). Particularly, medical methods with such agents like GnRH analog or antagonists, and Danazole have been reported to prevent chemo or radiotherapy related gonadal toxicity. Cryopreservation of oocytes, zygotes and embryos either by vitrification or slow-rate freezing subsequent to ovarian stimulation and oocyte pick-up along with/without traditional IVF and intracytoplasmic sperm injection are other common preventive techniques(3,4).

Currently cryopreservations of the oocyte, zygote and/or embryos are seems to be the most effective methods in fertility preservation especially in reproductive age women (5). In regard of the cryopreservation techniques vitrification has claimed to be most appropriate and efficient technique due to simplicity and cost-effectiveness (6,7). On contrary, surgical methods are still accepted as difficult, and costly alternatives, as well experimental ones such as re-transplantation are not reported to be significantly efficient and reliable alternatives. In parallel, the effects of medical preventive alternatives, those generally resulted in pseudo-menopausal situation and mainly recommended to patients prior to reproductive age, are still controversial concerning side-effects, reduced effectiveness.

The number of available techniques for conserving fertility has increased in the last decade, but large studies are still needed to draw a conclusion. Some of these effective options such as vitrification of embryos are not allowed in Germany. Other technical issues remain unresolved, as is the question of medical insurance reimbursement for the most efficient procedures. All current aspects and techniques should be compared in order to presume the best method and standardization in female fertility preservation. New approaches and current management on fertility preservation in gynecological cancers were discussed in this presentation.

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O- 20 Emerging Technologies and Tools for Predicting Embryo Quality

One of the great challenges in clinical IVF is to refine embryo selection techniques so that the single most developmentally competent embryo can be reliably identified in every cohort of available embryos. While morphological evaluation has been the primary method used for embryo assessment, this approach has recognized limitations and there remains no consensus regarding the optimum day(s) for evaluation or the scoring systems to use. This lecture will appraise the relative efficacies of single day versus multi-day morphological scoring. We will then proceed to consider evolving non-invasive technologies for embryo selection including both targeted and profile approaches (metabolomic and proteomic systems), as well as technologies using comprehensive genomic hybridization and microarray assays. The presentation will conclude by evaluating available data regarding the relative utilities of each of these approaches for optimal embryo selection in 2010.

LEARNING OBJECTIVES

At the conclusion of this lecture, the participants should be able to:

1. Appraise the efficacies of single day *versus* multi-day morphological evaluation
2. Describe the principles underlying evolving non-invasive approaches for embryo selection
3. Review developing invasive technologies involving comprehensive genomic hybridization and microarrays
4. Evaluate the current status of embryo selection in the context of morphological evaluation, non-invasive and invasive technologies.

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O- 21 Predictive value of oocyte morphology in human IVF

Morphological assessment of preimplantation stage embryos is a key element of the laboratory work in human assisted reproduction. Routine inverted microscopic investigations are performed at predetermined checkpoints, at least every second day of in vitro culture, and internationally acknowledged criteria are applied for quantitative characterization, although there are some concerns regarding the predictive value of these parameters.

Curiously, in the everyday work of an average IVF laboratory morphological assessment of the retrieved oocytes is rather superficial. The average investigation of in vitro inseminated oocytes is restricted to the presence and rough morphology of cumulus assessment by a stereomicroscope. However, the expansion of the cumulus investment depends mostly on the type of ovary stimulation and does not reflect authentically the quality and developmental stage of the overshadowed oocyte.

In case of ICSI, a rapid inverted microscopic evaluation is also performed after denudation, including evaluation of the cytoplasm, the perivitelline space and the zona pellucida. This evaluation provides a very superficial and approximate information about the stage of development (germinal vesicle, MI or MII phase), and the quality (degenerative signs in the cytoplasm, polar body or zona pellucida). Subsequently all MII phase oocytes are subjected to ICSI, and from that point the developmental potential of the obtained embryo is estimated exclusively on the basis of the morphology of the embryo proper, regardless of the quality of the oocyte it was derived from.

It has to be acknowledged that the overall light microscopic morphology of oocytes is rather dull compared with that of embryos and spermatozoa. However, oocyte quality is a key limiting factor in female fertility, reflects its intrinsic developmental potential, and has a crucial role not only in fertilization, but the subsequent development. According to some data the phenotype of the adult stage offspring is considerably defined by the quality of the oocytes from which they are derived.

Application of ovary stimulation in human reproduction further complicates the situation. In contrast to the in vivo process, where oocyte maturation occurs as the result of a long and meticulous natural selection procedure, common ovary stimulation procedures suppress this selection and allow seemingly successful maturation of oocytes with inherently compromised quality, destined to fertilization failure, compromised embryo development or long term consequences in vivo. The quality of the oocytes is determined not only by the nuclear and mitochondrial genome, but the microenvironment provided by the ovary and the preovulatory follicle that can modify the transcription and translation. Due to the complex picture it is highly unlikely that a single factor, characteristic or mechanism can adequately indicate the proper developmental competence of oocytes. Accordingly, to obtain a full information about the quality, a detailed and non-invasive analysis of key markers would be required.

In spite of the intensive research and some promising results the application of microarray and mass spectrometry techniques for proteomic and metabolomic characterization of single oocytes is still at the beginning.

The purpose of this presentation is to review and to evaluate the results of available publications dealing with the predictive value of morphological features of MII phase human oocytes on the developmental competence.

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O- 22 Ovarian hyperstimulation syndrome

Botros Rizk (USA)

Abstract not received

O- 23 Oocyte vitrification: indication and clinical results

Recent advancement of minimum volume vitrification methods has resulted in a dramatic increase in the efficiency of the process of oocyte vitrification. We recently estimate the cumulative reproductive outcome of a cohort of infertile couples undergoing ICSI and oocyte vitrification in restrictive legal conditions, where only a limited number of oocytes could be inseminated per cycle and embryo selection and cryopreservation were forbidden. In this prospective longitudinal cohort study, the cumulative ongoing pregnancy rates obtained by the insemination of fresh and vitrified oocytes from the same cohort were calculated as primary outcome measures. Moreover, the effect of basal and cycle characteristics on clinical outcomes were assessed. Between September 2008 and May 2009, 182 ICSI cycles were performed where oocyte vitrification was possible. A total of 104 first and 11 second oocyte warming cycles were then performed in non-pregnant patients of the same cohort. The overall ongoing pregnancy rates obtained in the fresh, and first and second warming cycles were 37.4, 25.0 and 27.3%, respectively. The overall cumulative ongoing clinical pregnancy rate observed per stimulation cycle was 53.3%. Maternal age was the only characteristic found to influence the reproductive outcome, with an inverse correlation between the age >40 and the ongoing pregnancy rates (P = 0.04, by Cox regression analysis). We can conclude that high cumulative ongoing pregnancy rates can be obtained with transfers of embryos derived from fresh and cryopreserved oocytes in a typical infertile population. Female age significantly affects outcomes in this system.

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O- 24 Laparoscopic-assisted extra - corporeal ovarian cystectomy for endometriomas: A simple alternative to traditional laparoscopic ovarian cystectomy.

Objectives: To Describe and evaluate a new technique of laparoscopic-assisted extra-corporeal ovarian cystectomy in patients with endometrioma. Design: A prospective randomized study. Setting: Sohag University hospital. Patients: Forty six women with endometriomas. Interventions: laparoscopic ovarian cystectomy (19 patients; group I), and laparoscopic-assisted extra-corporeal ovarian cystectomy (20 patients; group II). Main outcome measures: Operative time, CO2 consumption, post-operative pain, post-operative complications and the recurrence rates over a 6-months follow-up period. Results: The operative time, CO2 consumption and post-operative pain are significantly lower in group II than in group I. Although, group II requires a slightly longer abdominal incision than group I, but it requires less number of incisions. Recurrence of endometrioma occurred in 2 cases (10.5%)only of group I. Conclusions: Laparoscopic-assisted

extra-corporeal ovarian cystectomy entails a shorter operative time, less post-operative pain and requires less experience than laparoscopic ovarian cystectomy. It is a simple and effective alternative to laparoscopic ovarian cystectomy. Key words: Endometrioma, Extra-corporeal ovarian cystectomy, Laparoscopic ovarian cystectomy.

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O- 25 Role of Laparoscopy in the management of Infertility

INTRODUCTION: to evaluate the efficacy of Laparoscopy in the management of infertility cases.
MATERIALS AND METHODS: Medical records of 292 infertile female patients, who underwent Laparoscopy at Misurata Teaching Hospital, Misurata National Cancer Institute and at the Lady private Clinic over the years (2007-2009), were retrospectively analysed. The main outcome measure of the study was the rate of pregnancy after 6 months following the Laparoscopic surgery.
RESULTS: Those who had normal pelvic organs were only **97** (33.21%), while pathology was observed in **195** (66.78%) cases and classified into 4 groups, **A**: **62** patients with either unilateral or bilateral tubal occlusion (treated with fimbrioplasty or neosalpingostomy), **B**: **53** patients with pelvic adhesions, only **7** with no history of previous abdominal operations (adhesiolysis performed), **C**: **47** patients with PCOS treated with laparoscopic drilling of the ovarian cortex, **D**: **33** patients with endometriosis either stage II or III according to ASRM classifications (some of them managed with fenestration and coagulation).In **A** group **43** patients obtained pregnancy (69.35%) of which **39** were intrauterine : **31** after fimbrioplasty and **8** after neosalpingostomy. Only **4** were ectopic. **37** (69.81%), **31** (65.9%) and **9** (27.2%) patients got pregnant in **B**, **C** & **D** groups. The overall complication rate was 2.9%.
Conclusions: Laparoscopy provides a mechanism to diagnose and treat underlying pelvic pathology that may be causative for infertility. It demonstrates accurate results, low cost, very good acceptance by the patients, and with minimal complication risks.

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O- 26 How can you decrease the major and minor complications related to gynecologic laparoscopic surgery?

Introduction: despite the growth of laparoscopic surgery, its complications must not be underestimated. The aim of this study is analysis of characteristic and rate of complications in operative and diagnostic laparoscopic surgery.
Material and Method: This prospective research during 5 years in Jahrom's Pymanieh Hospital on 280 patients were performed. Age, from 16 to 43 years, the surgical procedures include: adhesiolysis , Ovarian surgery, destruction of endometriotic lesions, four major complications

were occurred: 1- extraperitoneal insufflation of carbon dioxide that induced chest and neck emphysematous pattern, so, stopped procedure temporary(0.35 %). 2- cardiac arrest, during gas intraperitoneal insufflation was occurred, cardiac resceitation was performed immediately(0.35%).

Two last cases were vesical traumas(0.71%): first; during Intraabdominal trocar insertion, second; interesting and unexpected case, vesical trauma, despite fixed foley catheter was occurred, because after voiding, about 20cc of urine, was stopped urine void, so, bladder was very distended ,like a very large ovarian cyst(10×15cm) and because of educational environment, perforation was occurred due to vesical manipulation, so two last cases, by injection of methylen blue, impression was defined, then vesical repair through laparotomic procedure performed. *The minor complications* include: wound infection and hematoma were occurred in 3 (1. 07%) obese patients, vulvar edema in 1(0.35%), subcutaneous emphysema in 1(0.35%), mild to moderate peritoneal irritation from retained intra-abdominal gas in 20(7.1%) patients.

Result: overall, major complication rate was 1.4% (4 patient), but none of them was needed to blood transfusion, and all of them discharged with good general conditions, from hospital. Minor complication rate was 9.6%(27 patients), that outpatient were managed.

Conclusion: despite surgical laparoscopic complications, special advantages, comparable to laparotomy, significantly decreased manipulation and adhesion, short hospital stay and convalescence time to the patient, but continuous effective training is imperative to minimize, the risk of abdominal and pelvic injuries, in particular, the urinary tract. critical documentation of complications of laparoscopy in a central unite in every country, is important for the development of this surgical technique and decreased complications.

Key words: laparoscopy, surgical complication, continuous effective training.

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O- 27 Hysteroscopic evaluation of the uterine cavity after Intracytoplasmic sperm injection and embryo transfer failure: Is it rewarding?

Objective: To evaluate the role of hysteroscopy and directed biopsy in women after failure intracytoplasmic sperm injection (ICSI) and embryo transfer despite transfer of good-quality embryos.

Design: Prospective experimental study.

Setting: Endoscopic units of the departments of OB/GYN, Qena and Sohag University Hospitals.

Patients and Methods: One hundred eighty sex women who failed to conceive after one trial of Intracytoplasmic sperm injection and embryo transfer due to male factor infertility despite transfer of good-quality embryos and met the inclusion criteria were recruited into this study. All patients exposed to diagnostic hysteroscopy with directed biopsy after taking thorough history and detailed

physical examination, any intrauterine abnormalities had been corrected accordingly. Post-operative follow up was done monthly for a period of one year to detect pregnancy either spontaneously or after assisted trials.

Results:Abnormal hysteroscopic findings were found in 25% of all patients of the study group. Uterine adhesion and partial septum were the most common anatomical abnormalities representing about 10.2% and 9.4% respectively. Histopathological abnormalities of the endometrium were found in 9.4% of the patients. Hyperplasic endometrium was the most common finding representing about 3.9% of the patients. About 25% of the patients had conceived during the postoperative follow up period.

The clinical pregnancy rate after operative hysteroscopy was 56.25% compared with 14.6% in the non-intervention diagnostic hysteroscopy group (RR 3.86; 95% CI: 2.18–6.84) ($P<0.05$). The pregnancy rate after hysteroscopic correction of intrauterine abnormalities ranged from 50% after correction of the septate uterus, up to 69 % after adhesolysis. About 15.6% of all patients had conceived with a second trial of ICSI

Conclusion: Hysteroscopic evaluation of the uterine cavity is highly valuable for women scheduled for repeated ICSI procedure. Hysteroscopic correction of uterine anatomical abnormalities not only increases the success rate of ICSI but also, increases the spontaneous pregnancy rate. We recommend the IVF/ embryo transfer centers to establish diagnostic hysteroscopy as an essential preliminary step for patients scheduled for repeat ICSI procedures.

Key Words: Hysteroscopy, endometrial histopathological abnormalities, ICSI failure.

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O- 28 Comparison of the effects of letrozole versus clomiphene citrate combined with gonadotropins in intrauterine insemination cycles

The purpose of this study is to compare the efficacy of letrozole with that of gonadotropins and clomiphene citrate (CC)/ for ovarian stimulation in women undergoing IUI. Material and method In this prospective simply randomized clinical trial, one hundred sixty patients eligible to undergoing intrauterine insemination (IUI) therapy were randomized to receive either letrozole or clomiphene citrate (CC)-gonadotropin. The patients were selected among patients referred to one university hospital and one private infertility clinic. A letrozole (grop A) dose of 5 mg/day (n=80) was given on days 3–7 of the menstrual cycles. Clomiphen citrate (group B)a dose of 100 mg/day was given like letrozole combined with human menopausal gonadotropin (hMG) dose of 150 IU/ml administered every day starting on day 8. Ovulation was triggered with urinary hCG (10,000 IU) when the leading follicle(s) reached 18 mm in diameter. A single IUI was performed 36-40 hours later. The. Ovarian stimulation response (E2 levels and number of follicles, clinical pregnancy and

endometrial thickness) was primary outcome. Results There were no differences in demographic characteristics between groups (Table .1). There was a significantly lower peak serum E2 level in the group receiving letrozole compared with CC (236± 86 vs. 283± 106 pg/mL, respectively; P<.002),and the number of mature (>18 mm) preovulatory follicles was significantly higher in CC compared with letrozole group(2.2±.68 vs.2.02±.63 respectively; p=.025). A significantly higher endometrial thickness was observed at the time of hCG administration in patients that received letrozole (9.08 ± 1.2 mm vs. 8.1 ± 1.9 mm; P=.0001). The pregnancy rate was comparable between letrozole and cc groups. (17 patients (21.3%) vs.11 patients (13.8%), respectively). Conclusion Letrozole is a good and cost-effective alternative to cc in IUI cycle.

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O- 29 Recurrent Spontaneous Ovarian Hyperstimulation Syndrome. Case Report and Review.

Introduction: Ovarian hyper-stimulation syndrome (OHSS) is a known serious and potentially fatal complication of ovulation induction. The incidence of Spontaneous OHSS is rare with only few reported cases. **Objective**: We report a case of recurrent OHSS in two successive spontaneous pregnancies to raise awareness of its occurrence to avoid misdiagnosis and inappropriate management. **Case**: A 33 year old female, known with polycystic ovary syndrome (PCOS) and a history of previous clomiphene induced pregnancy complicated with OHSS then miscarriage at 7 weeks. She presented at 6 weeks of spontaneous with OHSS. Both ovaries were enlarged with multiple cysts and she had ascites. Her ovaries continued to enlarge massively over the first 24 weeks of gestation and remained enlarged until delivery. Serial Doppler and ultrasonographic imaging allowed a safe conservative management. She delivered vaginally at term to a healthy baby girl weighing 2600 grams. Post partum follow up showed a gradual regression of both ovarian sizes and a return of hormonal profile to normal. Later while abroad, she had right oopherectomy for possible torsion. Three years later she presented at 6 weeks of another spontaneous pregnancy with OHSS. She was managed conservatively again until delivery at term to a healthy baby girl weighing 3100 grams. Gradual regression of left ovarian size was noted as before. **Conclusion**: Spontaneous OHSS (SOHSS) may occur. PCOS may be a risk factor for SOHSS as reported here and previously. Conservative management of SOHSS with close follow-up and serial ultrasonographic evaluation is important to avoid unnecessary intervention.

R.M. Abo-Leyah and M.A. Hajri

O-30 Clomiphene citrate for poor responder women undergoing IVF/ICSI treatment cycles: Randomised controlled study

Background: One of the most frustrating problems in IVF today is the low pregnancy rate in women with poor ovarian response. Poor responders are estimated to comprise approximately 9-24% of IVF/ICSI patients**. Patient and Method**: Randomised controlled blind study, 70 poor responders women aged 20-42 years, with a history of 1^{ry} or 2^{ry} infertility were included.Poor response was defined by the number of dominant follicles on HCG day and number of mature oocytes <3 or cycle cancellation due to poor ovarian response. Patients were randomized to receive either GnRH antagonist plus clomophene (study group) or GnRH agonist plus HMG (Control group) using computer-generated random numbers concealed in opaque envelopes. **Results:**There were no significant differences between the two groups in the baseline characteristics. There was no evidence of significant differences between the two groups in the cycle cancellation rates, and the number of mature follicles, total oocytes obtained and endometrial thickness at day of HCG. There was evidence of significant difference in treatment duration (8.5 $\pm$ 2.7 vs.12.5 $\pm$ 2.4 day, P < .0001) and the gonadotrophin consumption (25.4$\pm$ 8.1vs. 50 $\pm$ 4.5, P <.0001) appeared lower in the study group. The implantation rates were similar between the two groups, but the number of embryos transferred was significantly higher for the study group (2.32±0.58 versus 1.50±0.83, P < .0001). The clinical pregnancy rates per women randomized was higher in the study group (OR: 1.68, 95% CI: 0.40-8.55), but the differences were not statistically significant. **Conclusion:** our study demonstrates that the proposed protocol for ovulation induction can be usefully administered to poor responders women to obtain a shorter duration of stimulation and lower number of gonadotropin ampoules, and more favorable implantation and pregnancy rates.

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O-31 Can Metformin reduce the incidence of Gestational Diabetes Mellitus in pregnant women with polycystic ovary syndrome? Prospective Cohort Study

Background: Women with polycystic ovary syndrome (PCOS) are at a high risk to develop Gestational Diabetes mellitus (GDM). We hypothesized that metformin due to its metabolic, endocrine, vascular and anti-inflammatory effects may reduce the incidence of GDM in PCOS women. **Patient and Method**: We carried out a prospective cohort study to determine the beneficial effects of metformin on PCOS patients during pregnancy. Three-hundred and sixty non-diabetic PCOS patients who were conceived on Metformin by different treatment modalities. Two-hundred pregnant women continued on metformin at a dose of 1000–2000 mg daily throughout pregnancy (study group) and one-hundred and sixty women discontinued metformin use at the time of conception (control group) **Results:** there is a statistically significant reduction in the incidence of

GDM in favor of metformin group (OR: 0.17, 95% CI: 0.07-0.37). There is a statistically significant reduction in the incidence of pre-eclampsia in favor of metformin group (OR: 0.35, 95% CI: 0.13-0.94). **Conclusion:** metformin is a promising medication for the prevention or reduction of the incidence of GDM and pre-eclampsia in PCOS women

Keywords: Metformin, Polycystic ovary, Gestational Diabetes,

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O-32 The effect of Laminin and Gelatin extracellular matrix on short-term cultivation of neonate mouse spermatogonial stem cells

Objective: To compare the effect of laminin and gelatin on short-term culture of spermatogonial stem cells (SSCs) from neonatal mouse testes.

Materials and methods: Cell suspension containing SSCs were isolated from testes of 6 day-old mice and cultured in the presence of Glial-derived neuroterophic factor (GDNF),Epidermal Growth Factor (EGF) and Basic Fibroblastic Growth Factor (bFGF) on laminin- and gelatin- coated plates for 9 days. Number and area of colonies were measured in 5^{th} ,7^{th} and 9^{th} days after culturing. At 9^{th} day Immunostaining was used to detect expression of SSC markers , α6-Integrin and β1-Integrin. moreover, the colonies were harvested and the percentage of α6-Integrin and β1-Integrin positive cells was assessed by flowcytometery in the both groups.

Results: Immunostaining analysis showed that our culture system contained SSC colonies as they were positive for α6-Integrin and β1-Integrin. Additionally, the number of colonies those were formed on laminin were significantly higher in comparison with other group. but colony area was higher on gelatin. There was no significant difference in percentage of cells that expressed α6-Integrin, β1-Integrin detected by flowcytometry in both groups.

Conclusion: laminin as extracellular matrix cause to increase The number of neonate spermatogonial colonies and decrease the area of them ($P \leq 0.05$) .

Keywords: Neonatal mouse, Spermatogonial stem cell, Laminin, Gelatin

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O-33 Associations between CAG repeat length & male infertility

Abstract: The androgen receptor gene (*AR*) is located on the X chromosome and contains a polymorphic CAG tract. CAG repeat expansions in the *AR* has been reported to be associated with male infertility in some populations.

Until now, no studies have been carried out amongst Syrian patients. To examine this hypothesis, we have analyzed the CAG repeat length in exon 1 of the androgen receptor gene in 110 Syrian males with idiopathic infertility and 50 fertile male controls. The mean number of CAG repeat was 22.32± 3.08 (mean ± SE) in patients (range 13-31) and 21.68± 2.68 in normal males (range 15-27). A *t*-test was performed with a not significance level of (P=0.05).We found no statistically significant difference between the two groups, P value was (P=0.21). We concluded that expansions of the CAG repeat in the *AR* gene, is not associated with male infertility in Syrian population.

Key words: *male infertility, androgen receptor gene, CAG repeats*

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O-34 Invivo study the effect of Oxamate on LDH-C4 activity of sperm in Rat

Introduction:. LDH-C4 is an isoenzyme of lactate dehygrogenase that is found in mature testis and spermatozoa of many species. Its Physiological function appears to be related to metabolic processes that provide energy for motility and survival of spermatozoa. In vitro study have showne that oxamate analog of pyruvate and its derivate could be inhibited LDH-C4 activity of sperm, therefor in this research the aim was to study as an invivo the effect of Oxamate on LDH-C4 activity in rat was investigate.

Method: In this study 20 adult Rats were divided in to 4 groups, one group as a control and 3 others as experimental groups. Experimental groups received different concentration of Oxamate (150, 300, 600 mg/kg/day) for 45 days , while the control animals received only salin solution.The sperm was collected from the cauda epididymidis by placing minced cauda in culture medium (T6) for an hour at 37°C in a 5% CO_2 atomospher. The washed spermatozoa were resuspended in 0.05M Tris-Cl buffer, pH 7.4,and sonicated at high intensity for three 30-sec

periods. LDH-C4 was purified from mouse testes with a modification of a method Introduced by Goldberg. Protein measurement was determined by method Lowery.The sperm protein was purifed by ammonium sulfate precipitation,DEAE-SephadexA-50anion exchange chromatography For determination of enzyme activity, the change is the absorbance in 1 minute at 340 nm duo to the dehydrogenation of NADH at 30° C was recorded.

Results: Chromatographic separation of LDH-C4 on DEAE Sephadex A-50 showed that fraction 5-13 contain enzyme activity and fraction 9 had maximum activity and total enzyme activity in fractions obtain from control group was 11.77±0/3 Unit and Oxamate reduced LDH-C4 activity of sperm in a concentration dependent so that in experimental groups who received 150, 300 and 600 mg/kg oxamate was 8.82±0/3, 6.98±0/2 and 3.22±0/1 Unit respectively, and on at concentration 600 mg/kg could inhibiteed 63% LDH-C4 activity.

Conclusion: Duo to the unique present of LDH-C4 in spermatozoa and spermatogenic cell, LDH-C4 can be used as a target enzyme in antifertaility studies and development of selective inhibitors for LDH-C4 can be completely justified because it could be useful as biochemical tools for further charectrization of the metabolic and fertility implication of LDH-C4. Oxamate as a competitive and selective inhibitor of sperm-specific lactate dehydrogenase-C4 and sperm motility can be used on male contraceptive.

Keywords: LDH-C4 , Oxamate, Sperm,Rat

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O-35 Razan experience in fresh and frozen spermatozoa retrieved from obstructive and un obstructive Azoospermia

Introduction: Since the introduction of intracytoplasmic sperm injection ICSI in our center from June 1996 until December 2009.

We started to use Perctaneous epididymal sperm Aspiration (PESA). Patients with negative PESA underwent testicular sperm extraction (TESE), later on we started to use testicular fine needle aspiration (TEFNA).

Material and methods : the records of (1050) Azoospermic patients covering the period from June 2000until December 2009 were reviewed retrospectively .

In total (490) patients were categorized as obstructive and PESA was positive in
(440) of these .

Some patients categorized as un obstructive and PESA was positive in (24) of these a total of (546) patients from both groups, underwent TEFNA and TESE , some patients had no spermatzoo (48) were excluded.

Results: In the fresh PESA groups (219). (3276) metaphase II oocytes MII were injected . (2152) were fertilized (65.6%) and (1836) embryos were cleaved
(85.2 %) and (1104) embryos were transferred (3.4 per patient) Pregnancy rate
(37.9%) .

In frozen PESA group (225) (3115) metaphase II oocytes MII were injected.
(2212) were fertilized (71 %), (2007) embryos were transferred (3.4) per patient. Pregnancy rate (31 %)
In fresh TEFNA group (95), (855) MII were injected (570) were fertilized (66 %)(420) embryos were cleaved (73.6 %) and (285) embryos were transferred (3) per patient , Pregnancy Rate (30.5 %) .
In frozen TEFNA group (44) (352) MII were injected (197) were fertilized (55.9 %).
(162) embryos were cleaved (82 %) and (148) embryos were transferred (1.5) per patient Pregnancy rate(20.4%)
In Fresh TESE group (161).(1449) MII were injected (960) were fertilized (66.2 %) . (722) embryos were cleaved .(75%) and (322) embryos were transferred (2)per patient, and Pregnancy rate (17,3%) .

In frozen TESE group (246) (1968) MII were injected (1114) were fertilized (56,6 %). (738) embryos were transferred. (3) per patient .
Pregnancy rate (18,6 %).
Conclusion :
1. PESA should be the 1st choice in azoospermic patients, as it is simple and minimally invasive with higher pregnancy rate.
2. TEFNA is the second line procedure as it is simple and minimally invasive and
good success rate .
3. TESE should be the last choice , because it is more invasive with low success rate.
4. No significant difference in pregnancy rate in fresh or frozen samples.

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O-36 Uterus transplantation – research towards clinical introduction

Unconditional uterine factor infertility remains untreatable. Uterus transplantation (UTx) aims to treat this type of infertility by replacing a non-functioning or non-existing uterus. After one attempt of UTx in the human 10 years ago, intensive research has been performed in the field of experimental UTx to optimize the procedure for a clinical introduction as an experimental procedure.
The research efforts follow the FIGO guidelines on uterine transplantation, stating that extensive animal research, also including large animals and primates, have to be performed before clinical introduction. Our research UTx research project involves several animal models (mouse, rat, pig, sheep, baboon) to study aspects such as surgical techniques, ischemia-reperfusion injury, immunosuppression and fertility.
With these models we have for the first time demonstrated pregnancy and healthy offspring after syngeneic UTx (mouse, rat), pregnancy and offspring in large animal (sheep) after auto-UTx,

pregnancy after allogeneic UTx (rat). Importantly, we now have models for allogeneic UTx both in rats and baboons and these models will be helpful in future research.

We believe that the following two goals should be fulfilled before a human UTx attempt: 1, demonstration of healthy offspring from allogeneic transplanted uterus under immunosuppression in one species 2. demonstration that the surgery is mastered in the primate model with long term survival of an allogeneic uterus.

It is our prediction that we have fulfilled these research goals within one year and we are then prepared for a human attempt.

Mats Brännström, Department of Obstetrics & Gynecology, Sahlgrenska Academy, University of Gothenburg

O-37 Fresh and frozen ovary transplantation to preserve fertility in cancer patients, and to extend the reproductive lifespan

Objective: Ovarian tissue cryobanking to preserve fertility has been performed worldwide for over a decade, but until recently there was no way to assess the efficacy of this strategy for achieving healthy babies. A series of cases of premature ovarian failure (POF) at one center using the same microsurgical techniques for both fresh and frozen transplants, provided this opportunity.

Design: Consecutive series of women with premature ovarian failure (POF) who underwent either fresh (9), or frozen (3) ovarian transplantation.

Materials & Methods: Ten women with ovarian failure were recipients of 12 ovarian tissue transplants, 9 fresh and 3 frozen. In two patients, the reason for ovarian failure was cancer chemotherapy and radiation, and in eight patients the premature ovarian failure was idiopathic.

Results: There have been 14 pregnancies in these 10 women resulting in 11 healthy babies. Nine babies resulted from fresh ovary transplants, and two were from the 3 frozen transplants. All 11 children are normal and healthy. Two of the 11 healthy babies were in women who had received pelvic radiation as part of a bone marrow transplant. Duration of function of the grafts varied from only two years (where the donor ovary had a prior low antral follicle count) to over five years. All recipients of ovarian grafts, whether fresh or frozen, resumed menstrual cycling and ovulation within 4.5 months of transplantation and serum FSH returned to normal levels at that time. There was no apparent difference in return of ovarian function between the nine fresh and the three frozen grafts.

Conclusions: Ovary transplantation with cortical grafts, whether fresh or frozen, appears to give robust results with most patients having healthy babies and all having resumption of ovulation. The long duration of function of most of the fresh grafts suggest there may be less damage from ischemia time than might have been previously thought. Ovary freezing and later auto-transplantation is a successful and robust technique not only for preserving fertility of cancer patients, but also to extend and lengthen a woman's reproductive lifespan.

Dr. Sherman Silber

O- 38 Therapeutic strategies in poor responders .

The standard goal of all fertility treatments is the improvement in pregnancy rates in patients with infertility problems. Within the past years, ovulation induction has contributed to the success of assisted reproduction techniques, in vitro fertilization (IVF) and embryo-transfer (ET). The efficacy of these techniques depends on a personalized protocol of controlled ovarian hyperstimulation (COH) and an adequate oocytes recruitment .

The response of several patients to ovarian stimulation protocols used as a routine is not always as expected. A failure to respond adequately to standard protocols and to recruit an adequate number of follicles is called 'poor response'. The lack of clear, uniform definition concerning the poor responders and the lack of large-scale randomized studies make data interpretation very difficult for precise conclusions.

Optimistic data have been presented with the use of high doses of gonadotropins rFSH or HMG , the flare up Gn RH-a protocol(standard or microdose), the stop protocols, the luteal onset of Gn RH-a and the short protocol. The use of GnRH antagonist may be associated with simpler stimulation protocols, lower gonadotropin requirements, reduced patient costs, and shorter downtimes between consecutive cycles. Recent data suggest a potential beneficial effect of aromatase inhibition by the administration of letrozole prior to gonadotropin stimulation .The use of LH in ovarian stimulation in IVF-ET cycles has a beneficial effect in the quality of oocytes, as well as in the pregnancy rate . Natural cycle or a modified natural cycle seems to be an appropriate strategy for poor responders. Growth hormone and pyridostgmine in poor responders has been found to show a significant improvement in live birth. There is evidence that sort term pretreatment with transderm testosterone or long term treatment with DHEA has beneficial effect in poor responders. Also low dose of aspirine , adjunctive use of L-arginine ,and glucocortioids administration are alternative therapieutics approaches but further trials are needed to support the beneficial effect in patients confirmed as poor responders.

Available data seem to indicate that COCs given before treatment could be effective in patients who are resistant to clomifene citrate and in poor responders. The use of ICSI in poor responders is not justified unless there are concomitant indications such as Male factor of infertility and maybe in cases of unexplained infertility, where ICSI has been shown to decrease fertilization failure, however there is no difference in clinical pregnancy rates.

Molecular biology tools such as the single nucleotide polymorphisms (SNPs), have also been considered to assist the management of this group of patients. The clinical implications of SNPs (FSHR, ESR1, ESR2) are highly important and the ultimate goal is the application of genetic markers as routine diagnostic tests before ovarian stimulation, in order to predict the ovarian response. The frequency distribution of the Ser680Asn polymorphism of the *FSHR*, in patients with ovarian dysfunction (OD defined as FSH>10 mIU/mL) and in 'poor responders' (PR) demonstrates that in OD patients the FSHR Ser/Ser variant was more prevalent (45.5%), while the Asn/Ser variant is correlated with more follicles and oocytes. We also examined the frequency distribution of the Pvu II and Rsa I polymorphisms of the estrogen receptor 1 (*ESR1*) and estrogen receptor 2 (*ESR2*) genes respectively, in patients undergoing IVF. This study shows that CC allelic variant (*ESR1*) is associated with higher pregnancy rates compared to TC,TT allelic variant (31.3% vs 23.7% ,21%). The frequency distribution of *ESR1* allelic variants in relation to FSH levels revealed

a larger presence of the **CC** genotype in women with FSH>10 mIU/mL (30.8%) compared to women with FSH<9 mIU/mL (20%).

Many studies have evaluated the use of various ovarian stimulation regimens to improve the outcome of poor responders undergoing IVF treatment. There is no sufficient evidence to support the routine use of any particular intervention either for pituitary downregulation, ovarian stimulation or adjuvant therapy in the management of poor responders. More data from good quality controlled trials are needed . However, a trend for an overall improvement in ovarian response has been shown with some of these protocols giving hope for improving pregnancy rates .

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O-39 Adenomyosis and Infertility: Management and Trends

Introduction:

Adenomyosis is a benign disease of the uterus characterized by ectopic endometrial glands and stroma within the myometrium. It is associated with myometrial hypertrophy and may be either diffuse or focal. Possible association with infertility, early pregnancy loss and preterm labor.

Grading of adenomyosis

1- Superficial:inner myometrial third
2- Intermediate:tow myometrial third
3- deep:entire myometrical thickness

Epidemiology:

- About 1% of female patients.
- 5 - 70% of hysterectomy specimens (Azziz 1989).
- 31% if 3 sections: 61% if 6 sections (Bird 1972).
- More often in multiparous women.
- Fourth - fifth decade of life.

Diagnosis:

Ultrasound diagnosis, hsterography, mometrial biopsy, CA 125 and MRI.

Diagnosis can only be proven by the pathologists.

Adenomyosis and Infertility:

- Strong association between adenomyosis and longlife infertility in the baboon (Barrier et al, 2005)
- Association between pelvic endometriosis and adenomyosis 54% (de Souza et al, 1995) to 97-90% (Kuntz et al, 2005)
- Increased preterm labor (Juang et al, 2006)
- Uterine hypermotility: alteration of sperm transport (Kissper et al, 2006)
- Altered oxydative stress (Ota et al, 1998, 2000, 2001)
- Increased microvessel density (schindl et al, 2001)
- Altered gene pattern expression (Heres et el, 2006)
- Fewer follicles and corpora lutea.
- MII oocytes with scattered chromosomes.
- Cytoplasmic fragmentation.
- Formation of pseudopronuclei.
- Spontaneous oocyte activation.
- Reduced fertilization and abnormal pronuclei.
- Delayed-arrested embryo cleavage.
- No microtubules in blastocysts.

Adenomyosis and assisted reproduction

- When to offer IVF?
- Does it affect IVF outcome?
- Is medical therapy preIVF useful?
- Should ICSI always be used?
- If surgery is needed, which technique?

MANEGMENT

Medical treatment, surgical approaches, uterine artery embolisation and thermal therapy.

Conclusions:

- In women with adenomyosis the receptivity of the eutopic endometrial to embryo implantation appears normal.
- Adenomyosis might impair the mechanism of directed sperm transport.
- Adenomyosis might compromise the intrafollicular development of oocytes and thus represents a causal factor of subfertility.
- Adenomyiosis is strongly associated with endometriosis and uterine fibromas, thus being frequently diagnosed in infertile patients.
- Implantation in ART is not affected as ascertained by oocyte donation programs.
- How these alterations affect the window of implantation in natural cycles is not known.
- Alterations in the gene expression pattern of the endometrium of women with adenomyosis have been described.
- The infertility in women with adenomyosis is best treated by hormonal stimulation and IVF, not by insemination.

Key words: Adenomyosis, IVF, ICSI, Infertility, and Implantation.

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O- 40 Menopausal Hormone Therapy (MHT) , and Women's Heart, Does it Help, or Hurt ?What is the Verdict ?

Fouad Sattar (USA)

Abstract not received

O-41 ABCB5 Positive Stem Cells - A New Opportunity "

Christophe Ganss (Germany)

Abstract not received

O- 42 Comprehensive cytogenetic analysis of the blastocyst stage: the impact of aneuploidy on embryo morphology

Introduction- In most cases the developmental potential of embryos is assessed on the basis of morphological parameters. Additionally, some laboratories employ chromosome screening to reveal chromosome abnormalities. Previous studies have suggested there is little association between chromosome abnormalities and embryo morphology. However, these investigations have only assessed a handful of chromosomes per embryo [by using fluorescent *in situ* hybridization (FISH)] and have focused on the cleavage stage. We aimed to catalogue all chromosome errors

present at the blastocyst stage, using a cytogenetic screening method capable of detecting imbalance affecting any chromosome, and investigate whether a relationship exists between blastocyst morphology and aneuploidy.

Materials & Methods- 500 blastocysts from 93 couples (mean maternal age: 38.5 years, range 30-47 years) were investigated. Comprehensive chromosome analysis involved whole genome amplification, followed by comparative genomic hybridization (CGH). Morphological examination included assessment of TE and ICM, along with developmental rate.

Results- 56.7% of blastocysts were found to be chromosomally abnormal. A wide variety of aneuploidies were detected, in many cases affecting chromosomes not assessed in previous studies. There was a slight tendency for aneuploid embryos to show slower progression to the blastocyst stage. 14% of euploid and 11% of aneuploid embryos were grade 5 or 6 (most advanced development) by day-5, whereas 8% of euploid and 11% of aneuploid embryos only achieved a grade <3. Fast growing aneuploid embryos were usually trisomic (61%), whereas most slow abnormal embryos exhibited monosomies or complex abnormalities. Interestingly, for the most developmentally advanced blastocysts (grade 5) the sex ratio was skewed (72% male, 28% female). Aneuploidy also had an impact on the morphology of the inner cell mass. 62% of normal embryos were grade A (tightly packed ICM, many cells) compared with 49% of those with aneuploidy. When considering the trophectoderm, 46% of normal embryos were grade A (many cells forming a cohesive epithelium), compared with 35% of abnormal embryos.

Discussion- Embryos that progress to the blastocyst stage are considered to be of the highest implantation potential, yet relatively little is known concerning aneuploidy rates and any potential association between chromosome abnormality and morphology at this stage. Comprehensive chromosome screening carried out during this study revealed that, although less frequent than at the earlier embryonic stages, aneuploidy remains common in blastocysts (56.7% aneuploidy rate). It is therefore clear that extended culture does not eliminate the majority of aneuploid embryos. Indeed, it was found that aneuploid blastocysts achieved the highest morphological scores at a similar rate to chromosomally normal embryos. Interestingly, it was found that the majority of developmentally advanced blastocysts were male (3:1 ratio of male to female), suggesting that the sex ratio can be influenced by selecting embryos on the basis of morphological characteristics. The high aneuploidy rates, and the absence of a clear relationship between blastocyst morphology and chromosome status, suggest that the use of genetic testing to screen embryos at this final stage of preimplantation development may be worthwhile.

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O-43 Mild stimulation

Athough the first successful pregnancy after IVF and embryo transfer was performed in the natural unstimulated cycle of an infertile woman with a tubal factor, natural cycle IVF was soon replaced by stimulated cycles. Controlled ovarian hyperstimulation (COH) allowed a significant clinical outcome improvement. The combination of exogenous gonadotrophins and GnRH agonists lowers cancellation rate, raises the number of preovulatory follicles, the oocytes retrieved and the good quality embryos for transfer thus leading to better pregnancy rates. However, such ovarian stimulation is not free from negative consequences and risks, the most important one is without any doubt the ovarian hyperstimulation syndrome a well-known complication that could sometimes become severe and seldom be fatal. Moreover, standard COH regimens applied for IVF/ICSI treatment are expensive, complex and associated with stress which are mostly responsible of high rates of drop-out that should be considered an adverse treatment outcome since early cessation of treatment deprives the couple of an optimal cumulative chance of achieving pregnancy and therefore impacts on the overall success of the IVF program. It is then important to tailor interventions to improve treatment compliance and as a result improve cumulative pregnancy rates per couple and cost-effectiveness of IVF programs.

The introduction of GnRH antagonists into clinical practice has enabled the development of novel milder ovarian stimulation protocols (Fauser *et al*., 1999, 2005). Mild stimulation might be advantageous when evaluated over an entire (multiple cycle) treatment period, since the amount of time needed to complete a single IVF cycle is reduced, the costs of stimulation are lower (Hohmann *et al*., 2003; Tarlatzis *et al*., 2006), patient discomfort and chances for complications may be reduced and the patient dropout rate are decreased compared to conventional approaches (Heijnen *et al*., 2007, Verberg *et al.,* 2008).

Another important issue is the cost-effectiveness of the mild stimulation compared to standard protocols. The mean direct medical costs per IVF cycle is lower for the mild strategy mainly due to lower costs for medication and technical procedures (Polinder *et al* 2008). Moreover, with milder treatment strategies it is possible to shorten the recovery time between cycles allowing for more better tolerated IVF cycles in the same period of time compared with conventional stimulation protocols (88 ± 49 versus 109 ± 38 days; $P < 0.001$ respectively) but with lower average treatment costs (Polinder *et al* 2008).

A seeming advantage of standard over mild stimulation is that more fresh embryos will be obtained and therefore more embryos available for cryopreservation, which is important for the cumulative pregnancy rate. However, this advantage might be counterbalanced by having relatively more good quality embryos after mild stimulation: a recent study, in fact, shows that embryos obtained after mild stimulation are euploid more often than after standard stimulation (Baart *et al*., 2007)

In general, a greater acceptance of mild treatment strategies in IVF will increase the number of cycles with reduced costs, drop-out and maybe improved cumulative pregnancy rates per patients.

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O- 44 Fertility preservation in cancer patients: do they have hope?

Today the vast majority of children and adolescents diagnosed with cancer achieve relatively high rates of remission and long-term survival, due to significant advances in oncological treatment. Oncological surgery, radiotherapy and chemotherapy however, are often detrimental to fertility, thus substantially impacting a patient's quality of life. Concerns about fertility are similar for men and women; however, their opportunities for intervention differ considerably. This article reviews the literature, discusses the etiology and effects of cancer treatment on fertility, and presents the current and emerging options for the preservation of fertility in patients with cancer. The various diagnostic methods of assessing the fertility potential at the time of diagnosis and the efficacy of the different fertility preserving methods after cancer treatment are also presented.

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O- 45 Hysteroscopy and Infertility

Adolfo Allegra (Italy)

Abstract not received

O-46 Endocrine function of estrous cyclicity and follicular dynamics in neonate vitrified ovarian grafts after treatment of the ovariectomized host with melatonin

Introduction: The effect of melatonin treatment on neonate mouse ovarian tissue after vitrification, thawing and heterotopic transplantation into ovariectomized host mice was studied.
METHODS: Vitrified ovaries from neonate F1 hybrid mice, candidates for transplantation to treated or untreated groups, were thawed under standard conditions with or without the addition of 100 µM melatonin, respectively. Following transplantation, melatonin (20mg/kg/day) or saline solution was injected i.p. to the treated and the no treated groups respectively. Melatonin, gonadothropins and steroids concentrations, together with follicle survival and development were followed. Also, vaginal cytology was carried out to monitor estrogenic activity of ovariectomized recipient mice.
RESULTS: Histological and immunohistochemical studies showed that melatonin could improve the follicle mass quality in the ovarian graft. But, the restoration of fertile estrous was similar between treatment and control groups. Plasma LH and FSH levels were higher in the ovariectomized host than intact mice at before restoring ovary graft cyclicity. However, the melatonin administration reduced these high levels into nearly similar concentrations to those in intact mice. The correlation coefficients between gonadotropins and melatonin concentrations at

the different stages of the estrous cycle were significantly different from zero. Nevertheless, estradiol and progesterone secretions were not adversely affected by melatonin treatment. But the correlation coefficients were significantly different from zero.

CONCLUSIONS: These results suggest that melatonin could be beneficial as a protection from graft ovarian tissue as well as have positive effects on the deficient the activity of hypothalamic–pituitary–ovarian axis drive of the recipient.

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O- 47 IUI: myths and truths

Subfertility, defined as one year of unprotected intercourse without conception, affects 10 -15% of the couples trying to conceive. In couples with unexplained subfertility, cervical factor infertility and male subfertility intrauterine insemination (IUI) is often the first step in the treatment cascade. The rationale behind IUI is improvement of semenquality by processing of the sperm, better timing and deposition of the spermatozoa nearer the oocytes, but what do we really know about its effectiveness and safety, ie multiple pregnancy rates?

In this presentation a comprehensive review of the literature will be presented of many randomised controlled trials dealing with multiple comparisons. Unfortunately, these data do not provide rocksolid evidence that IUI is effective, because data is limited and of poor quality. Most importantly, most studies do not take into account the prognosis of natural conception and are therefore not able to examine the added value of IUI to intercourse. Recently, some trials have appeared who do take this into account. This data shed new light on the balance between natural conception and IUI.

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O- 48 Oocyte, embryos and blastocyst vitrification

Cryopreservation of embryos at different stage of development is an indispensable part of assisted reproductive techniques. Frozen embryo transfer contributes already 25% of all births achieved by assisted reproduction worldwide, and with systematical application, up to 42% of implantations can be derived from frozen embryos. In many clinics, birth rates after transfer of cryopreserved embryos are close or identical to those achieved with their fresh counterparts, increasing considerably the overall success rate of ART procedures measured by delivery per oocyte aspiration rates. However, legal issues and moral concerns may restrict the application of embryo cryopreservation. Additionally, due to the lack of a partner it cannot be applied in many cases of

fertility preservation with medical or social indications, and may create controversial issues in case of divorce or separation of partners. The most feasible solution for these problems is oocyte cryopreservation. Unfortunately, in spite of the relative early successes, widespread application of oocyte cryopreservation was hampered for a long time by inconsistent efficiency of the available cryopreservation methods. Stepwise adjustments of traditional slow freezing protocols as well as optimization of minimum volume vitrification methods have resulted in breakthroughs in this field. Recent prospective randomized studies in oocyte donation programs have found no significant differences between fresh and vitrified oocytes regarding the *in vitro* and *in vivo* developmental potential. According to a multicenter study, pregnancies and perinatal outcomes do not appear to be altered by oocyte vitrification. Our recent non-inferiority trial in a standard infertility program indicated that the oocyte vitrification procedure followed by ICSI is not inferior to the fresh insemination procedure, with regard to fertilization and embryo developmental rates. Moreover, in our recent prospective cohort study, we found that the cumulative outcome of embryo transfers performed in infertile patients with the subsequent use of fresh and vitrified human oocytes was comparable with what obtained with embryo cryopreservation. We believe that due to the latest advancements in the vitrification approach, cryopreservation of oocytes offers now new perspectives in ART.

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O- 49 Is Infertility on the increase?

There are several reasons why infertility is thought to be increasing, including falling sperm counts, environmental toxins affecting the fertility of both men and women, an apparent epidemic of chlamydial infection, an increase in detrimental lifestyle factors such as obesity, smoking and stress and postponement of childbearing. Despite this, several recent studies indicate that if anything infertility is becoming less prevalent, which many find surprising, particularly as infertility clinics seem to be as busy as ever. However the indications are that more couples are seeking help at an earlier stage in their reproductive lives, and more are becoming pregnant, many as a result of intervention. However this is not true of all countries, of all social groups nor of all causes of infertility. For example there is a growing problem with women who present late in their reproductive lives, perhaps too late to conceive, but who believe assisted reproduction can help, only to be disappointed. This is becoming a public health issue which has arisen partly because of the effectiveness of modern contraception and partly because of misinformation about the effectiveness of IVF and related techniques.

Professor Allan Templeton, University of Aberdeen

O- 50 Elective single embryo transfer (eSET) in developing countries: Reality or myth

Multiple pregnancy is the commonest adverse outcome of assisted reproduction technologies (ART). About one-third of all twin pregnancies are the result of in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI). Multiple pregnancies are associated with increased morbidity and mortality for both mothers and neonates compared with singleton pregnancies. The complications associated with multiple pregnancies also account for elevated costs. Although iatrogenic multiple pregnancy is essentially preventable by the replacement of only a single embryo, the rate remains unacceptably high. A recent UK wide verified data from the Human Fertilization and Embryology Authority, showed a 0.3% increase to 23.0% in the percentage of multiple births arising from IVF and ICSI in comparison with the previous year. The 23.0% multiple birth rate is in stark contrast with the 6% multiple birth rate achieved in Sweden and Finland in the same period (countries with high State funding of IVF), whereas overall IVF live birth rates are broadly comparable.

The multiple pregnancy rate is even higher in developing countries after ART due to the desperate IVF patients whose desire to maximize the chance of pregnancy far outweighs the fear of adverse outcomes of a treatment which they believe may allow them to achieve a family more quickly and cheaply, and the ART centers that transfer more embryos to achieve high pregnancy rates and maintain a high position among competitors.

Elective single embryo transfer (eSET) enables us to prevent multiple pregnancies after ART. However, eSET may result in a lower pregnancy rate per cycle, especially in an unselected population.

If we accept that the burden that iatrogenic multiple pregnancy places on couples, on their offspring and on society is too high, what should be done to influence practice and reduce the incidence of ART multiple pregnancies in developing countries?

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O- 51 The effects of controlled ovarian stimulation on the luteal phase: what can we do better to improve endometrial receptivity.

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Abstract not received

O-52 First trimester screening for Trisomy: What does the evidence tell?"

Preventive medicine is an integral part of clinician's daily practice. However, before being indulged into a preventive or a screening program four important criteria should be thoroughly examined:

1. The burden of suffering caused by the condition to be screened for.
2. The accuracy, easiness, safety, and cost of the screening test(s).
3. The presence of a sure method of diagnosis for individuals who would give a positive screening test result.
4. The presence of an effective and acceptable treatment for the screened for condition after its diagnosis.

Trisomy 21 is the commonest chromosomal abnormality affecting live births as its prevalence ranges between 1:700 to 1:1000 live births. As a disorder it is associated with a high burden of suffering for the affected individual and his/her parents.

Previous guidelines concentrated on maternal age as the main risk factor used for screening for Down syndrome. Screening was offered to pregnant women 35 years or older or those who have one or more risk factors. Screening depended mainly on measuring serum markers in the second trimester followed by a genetic amniocentesis as a diagnostic test for screen positive pregnant women.

However, the American College of Obstetricians and Gynecologists (ACOG) recommended offering screening to all pregnant women irrespective of their age or risk status. Also the ACOG advocated first trimester screening and offering chorionic villous sampling as a sure diagnostic procedure instead of second trimester amniocentesis for screen positive women to give affected women the chance of first trimester termination of pregnancy. These recommendations were followed and advocated for by many obstetricians and fetal medicine specialists worldwide.

This practice is increasing and gradually becoming the routine practice in antenatal screening programs. However, this recommendation, if applied on a routine basis, will increase the number of unnecessary invasive procedures, iatrogenic abortions (loss of normal pregnancies), psychological burden of having a positive screening test result, the fear of losing a normal pregnancy from the invasive diagnostic test, and cost of diagnosing a single case.

Given the current screening, diagnostic, and treatment methods for trisomy 21; the policy of mass screening is not appropriate with such a condition. Physicians as well as patients should be fully aware of the limitations of the current screening tests, the psychological implications of the false positive results, the hazards of the diagnostic techniques and the available treatments before choosing to be indulged in a trisomy 21 screening protocol.

The patient should be given the option to be screened or not and left to decide for herself. Thus, a full detailed written consent is mandatory to start a screening protocol on an individual basis.

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O-53 ART and Adverse Pregnancy Outcomes

While the majority of reports provide reassurance that assisted reproductive technologies are safe, emerging data in both animal models and in human suggest increased risks of epigenetic and imprinting disorders in children conceived from ART. Reproductive specialists need to be updated on these risks in order to provide appropriate patient counseling for improved patient care. This lecture will review the potential etiologies of any adverse outcome and consider the challenges relevant to this topic. We will then discuss the adverse outcomes of potential concern, specifically in the context of imprinting disorders in ART and the relevant potential causes of these abnormalities. The presentation will conclude by considering recommendations for patient counseling, and will discuss prevailing gaps in our knowledge and what is needed going forward to fill those gaps.

LEARNING OBJECTIVES

At the conclusion of this lecture, the participants should be able to:

1. Review the potential etiologies of any adverse outcome
2. Consider the challenges relevant to this topic
3. Review the adverse outcomes of potential concern
4. Discuss risks of imprinting disorders in ART
5. Appraise potential causes of imprinting disorders in ART
6. Consider recommendations for patient counseling
7. Address gaps in our knowledge

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O-54 Rare sites of thrombosis complicating Assisted Reproductive Treatment

Introduction: Thrombo-embolic disease is a rare complication in Assisted Reproductive Treatment (ART) and Ovarian Hyper-stimulation syndrome (OHSS), but potentially debilitating and fatal. Clinicians need to understand the background pathology and if possible to identify women at risk. Upper limb venous thrombosis is even rarer. Most of reported cases in general population have either obstructive or local factors promoting clot formation, which is not the case in ART population. **Subject**: We report two cases of upper limb and neck venous thrombosis diagnosed successively within 2 months after about 2000 cycles of ART. Both cases have conceived and delivered at term. ***Case***1: 37 year old managed with ICSI for male factor. She developed OHSS, 9 days after triggering hCG and received supportive management including prophylactic low molecular heparin. She was readmitted 40 days later with extensive left internal jugular and left sub-clavicular venous thrombosis. She also developed ascitis which needed frequent drainage until

third trimester. ***Case*** 2: 36 year old treated with IVF for unexplained infertility. She was admitted 38 days after triggering hCG with extensive right internal jugular and right sub-clavian venous thrombosis. She also developed a unilateral right pleural effusion. Both cases were treated with therapeutic low molecular heparin and managed by multidisciplinary team until delivery at term. Follow up 8 weeks post-partum was satisfactory in both. Thrombophillia screen was normal in case 1 and inconclusive in case 2. **Conclusion**: These two cases represent a rare complication in rare sites and with an unusual onset in absence of presumed predisposing factors. There was no clear thrombophillia in both and symptomatic OHSS was featured in one. More liberal use of prophylactic anticoagulants may be advised in ART. Both clinician and patient should be aware of these serious complications and further research is needed.

Rifaat Abo-Leyah and Martin DeBono

O- 55 Evaluation of sFas in serum and follicular fluid during ovarian stimulation for assisted reproduction

Introduction: To measure the level of sFas in serum and follicular fluid (FF) from infertile women undergoing exogenous gonadotropin stimulation as a part of IVF/ICSI cycles and to study its correlation with oocyte maturation, fertilization, and embryo quality.

Materials & Methods: Serum and FF samples were obtained from fifty-five patients at IVF Unit, Schleswig Holstein University, at the time of transvaginal oocyte retrieval after ovulation induction for assisted reproduction. sFas levels in the serum and FF were measured in duplicate by a solid phase enzyme-linked immunosorbant assay (ELISA). E2 levels were measured by an enzyme immunoassay.

Results: There was no statistically significant correlation between age and sFas levels in serum ($p = 0.84$, $r = - 0.35$) or follicular fluid ($p = 0.75$, $r = - 0.36$).

It was observed that the levels of sFas in serum and FF varies with different patients' diagnosis .There was a statistically significant increase in sFas levels in both serum ($p = 0.023$, $r = 0.08$) and FF ($p = 0.014$, $r = 0.01$) in patients with uterine causes of infertility compared with those having other causes of infertility. sFas were detected in low concentration in serum and FF in patients with andrologic and idiopathic causes of infertility.

A positive correlation was found between the sFas levels in the serum and those in the FF ($p = 0.01$, $r = 0.91$). However, no correlation was found between the levels of sFas and the levels of estradiol in the serum ($p = 0.427$, $r = - 0.03$). There was a significant correlation between the number of fertilized oocytes and the level of sFas in the serum ($p = 0.013$, $r = - 0.42$).

There was no correlation between the number of fertilized oocytes and the level of sFas in FF ($p = 0.168$, $r = - 0.40$).However, a significant correlation between the levels of sFas in the serum of pregnant ($n = 11$) and non pregnant women ($n = 44$) was observed ($p = 0.045$, $r = 0.90$).

Conclusions: lower levels of sFas in serum resulted in higher pregnancy rates. This fact is attributed to the presence of good fertilized oocytes. The above phenomena may suggest that low levels of sFas in serum may be beneficial for the implantation of fertilized oocytes or indeed prevent damage to the embryo. Lower levels of sFas seem to support embryo implantation.

Key Words:sFas,IVF,ICSI.

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O- 56 Implantation failure and multiple inherited thrombophilic gene mutations;

Incidence in Lebanese infertile woman and treatment results.

Introduction; implantation failures after multiple IVF embryo transfer is still a complex situation due to multiple factors. Many studies have shown an association between multiple inherited thrombophilia and implantation failure in IVF.

Aim; this study compared the prevalence of 9 thrombophilic gene mutations among 200 Lebanese women with a history of recurrent implantation failure after IVF-embryo transfer with 30 fertile control women and anticoagulant treatment in a group of 40 women with implantation failure.

Material and method; 200 women with more than 2 failed transfer IVF were tested for genetic thrombophilia. Blood was collected, in EDTA tubes, from all of the women for DNA analyses and mutations for factor V Leiden G1691A, factor V H1299R, factor II prothrombin G20210A, factor XIII V34L, beta-fibrinogen -455G>A, PAI-1 4G/5G, HPA1 a/b (L33P), MTHFR C677T, MTHFR A1298C were studied for all patient. Workup for implantation failure was negative for hysteroscopy, tubal pathology, karyotyp, hormonal test, anticardiolipin and lupus anticoagulant.

Results; 76% Of women with a history of implantation failure after IVF embryo transfers have a more than three gene mutations among the 9 genes studied and 27% of the control group ($P = <0.001$). The prevalence of total gene mutations among the women with implantation failure was significantly higher than among controls. A treatment with aspirin and low molecular wheight heparin was instored in 40 women and improvement in the pregnancy rates was shown.

Conclusion; multiple inherited thrombophilias is associated with implantation failure in Lebanese infertile women. And anticoagulation treatment may show a improvement in pregnancy rates.

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O- 57 Ovarian function after laparoscopic salpingectomy in infertile women undergoing in vitro fertilization (IVF).

Introduction: The effect of salpingectomy on ovarian reserve and ovarian response to gonadotropins has been debated, and alternative techniques have been proposed. The close anatomical association between vascular supplies of the fallopian tubes and the ovaries characterizes the rationale for the risk of impaired ovarian function after surgery. This cohort study aims to investigate the effect of salpingectomy and its aetiology on homolateral ovarian function and subsequent IVF outcome.

Material & methods: One hundred fifty seven patients with tubal infertility were admitted in the ART unit of Bichat Claude Bernard Hospital, Paris, between 2006 and 2008. Forty seven IVF cycles were done in patients with history of bilateral salpingectomy (BS group), 79 cycles were done in patients with history of unilateral salpingectomy (US group), and 145 cycles were done in patients without history of tubal surgery (NS group), defined by tubal blockage without evidence of hydrosalpinges. Ovarian function was assessed by hormonal blood tests and ultrasound antral follicules count. Ovarian response was assessed by the total dose of FSH administered, serum estradiol concentrations on the day of HCG administration, number of small (10-16mm) and large (>16mm) follicles developing in both ovaries, and number of oocytes retrieved and fertilized.

Results: Peak estradiol level ($p=0.01$), total number of oocytes retrieved ($p=0.02$) and fertilized ($p=0.002$), and total number of embryos obtained ($p=0.04$) in the BS group were significantly lower than in the NS group. Low ovarian response (less than 4 oocytes retrieved) was observed more frequently in BS than in US and NS groups (21.7% vs 9.5% and 6.9%, $p=0.02$). However, implantation, pregnancy and live birth rates were comparable between groups. In a US subgroup analysis, the number of small follicles was significantly decreased in the operated side compared to the other side (6.8 ± 3.6 vs 8.2 ± 3.9, $p=0.007$). This effect was more pronounced in prophylactic salpingectomy than in salpingectomy for ectopic pregnancy, where a significant decrease was also observed in large follicles (2.6 ± 2.3 vs 3.1 ± 2.3, $p=0.03$) and total oocytes retrieved (4.2 ± 3.2 vs 5.0 ± 3.4, $p=0.02$) in the operated side compared to the other side.

Conclusion: These findings do not argue the necessity of treating hydrosalpinges before IVF, but suggest that salpingectomy may have a negative effect on ovarian response to gonadotropins. This is particularly true in prophylactic and bilateral salpingectomy situations, where the ovarian blood supply may be disrupted with no possible compensation by the contralateral side. Alternative techniques should be discussed when bilateral hydrosalpinges are associated with a low basal ovarian reserve.

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O-58 Laparoscopic Strassman metroplasty for bicornuate uterus with successful pregnancy . (Report of 5 cases)

As our experience for laparoscopic suturing techniques and improved pregnancy outcome increases, the ability to do more complicated procedures for the correction of uterine anomalies increases as well. Laparoscopic Strassman metroplasty were done in 5 patients with bicornuate uterus with history of at least two 2nd trimester abortion with triple puncture technique, after transverse fundal hysteratomy incision including fundal cleft, unification of uterus was done with intracorporeal sutures in two layers, after 3 months of sequential hormone therapy HSG repeated and second look laparoscopy and hysteroscopy were done partial adhesion band were released in 2nd look laparoscopy and hysteroscopy, one patient got pregnant 6 months after 2nd look operation , she received tocolytic agent during late 2nd and 3rd trimester and delivered a boy 3300 gr at 38wks of gestation, there was no defect or dehesence along side of the incision line.

Key words : laparoscopic Strassman metroplasty, Bicornuate uterus, 2nd look laparoscopy ,hysteroscopy

HSG before operation

Before unification

During unification

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O-59 Endometrial polyps and IVF

Endometrial polyps and IVF ABSTRACT Introduction: we aimed at investigating the effect of Endomertial Polyps (EP) on the pregnancy outcome of IVF program. Materiam&Method : all patients with EP suspected by transvaginal US before oocyte recovery were recorded, their charts were reviewed and compared with other patients undergoing IVF at the Syrian Fertility Center, Homs –Syria between 2005-2009. Inclusion criteria were : Age 20 – 40 year First IVF cycle at our center We found 150 patients with EP (study group) to compare with 6504 patients without EP (control group). Results: 65 patients got pregnant in the study group (43%), compared with 3044 pregnancies in the control group (46.8%). Conclusion: EP do not decrease pregnancy rates in IVF programs. Key words: endometrial polyp, IVF, Infertility

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O- 60 Effect of sperm morphology and number on success of intrauterine insemination

Objective: To assess the effects of the number of motile spermatozoa inseminated and percentage of morphologically normal spermatozoa on the success of IUI.
Design: A prospective observational study.
Setting: University teaching hospital and private practice setting.
Patient(s): The study comprised 393 couples who underwent 714 IUI cycles.
Intervention(s): All IUI cycles were preceded by ovarian superovulation with clomiphene citrate 50 mg tablets orally twice daily for 5 days starting on the second day of menses and one hMG ampule 75 IU IM daily for 5 days starting day 5 of the cycle. Cycles were monitored by transvaginal ultrasound. The IUI was performed with a catheter 36±4 hours after hCG injection.
Main Outcome Measure(s): Clinical pregnancy.
Result(s): A total of 79 clinical pregnancies were obtained, for a pregnancy rate per cycle of 11.06%. The pregnancy rate per cycle was 5.55% when the number of motile spermatozoa was $<5x10^6$ and 24.28% with normal motile sperm $>5x\ 10^6$. For patients <25 years old, with number of motile spermatozoa $>5x10^6$, the pregnancy rate per cycle was 28.2%, which is significantly higher than that of other age groups. Above the age of 35 years, no pregnancies were reported with number of motile spermatozoa $<5x10^6$, and the pregnancy rate was very low (0.84%) with number of motile spermatozoa $>5x10^6$. When the normal sperm morphology was >30% and number of motile spermatozoa inseminated $>5x\ 10^6$, the pregnancy rate was 20.77%.
Conclusion(s): Intrauterine insemination used for treating male factor infertility has little chance of success when the woman is older than 35 years, the number of motile spermatozoa inseminated is $<5x10^6$, or normal sperm morphology is <30%.
Key Words: Intrauterine insemination, sperm parameters

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O- 61 Effectiveness of mixed human follicular fluid (v) other culture medias

Introduction: Human follicular fluid (HFF) is a highly complicated liquid secreted by follicular cells. It's contents concentrations make them able to synchronize oocytes maturation. In this paper our aim is to prove the effectiveness of replacing common culture medias with a mixture of (HFF) and Ham's F-10
Material and methods: 251 couples (from 7^{th} -1-2009 to 6^{th} -4-2010) underwent ICSI procedure with 1617 oocyte were unfertilized and incubated in either (MHFF) or other culture media and nb
Results: (MHFF) as culture media is a non expensive, easily used substitution of common culture medias, with no diverse impact on pregnancy rate in ICSI patients.
Conclusion: we found HFF effectiveness in embryos development as other media's, but we found that HFF mixed with Ham's F-10 (1:1) significantly efficient for embryos development.
Keywords: Human follicular fluid, media culture,embryos

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O- 62 Factor V Leiden and factor II G20210A mutation in women with recurrent abortion

Introduction: The purpose of this study was to determine the roll of factor *V Leiden* and prothrombine gene mutations in recurrent abortion. We evaluated the prevalence of factor V Leiden and factor II G20210A mutation in patients with recurrent abortion and healthy control women.

Material and Methods: We studied 80 women (mean age 28.15 years, range 19-42) with two or more recurrent abortion. The control group consisted of 80 healthy women who have had no abortion history with at least one successful pregnancy. Factor V Leiden and factor II G20210A mutations were determined by PCR-RFLP method.

Results: The factor V Leiden mutation were detected in 2 out of 80 women with history of recurrent abortion (2.5%) and one control sample (1.25%). The frequency of the factor V leiden mutation among women with recurrent abortion was higher in comparison with control. (Odds ratio, 1[95% CI, 0.18 to 22.7]; P= 0.4). The factor II G20210A mutation was not seen in women with recurrent abortion and control group.

Conclusion: Our findings show that the higher prevalence of factor V Leiden in recurrent abortion women in comparison with healthy women. We recommend the same study with greater sample size for determining of the roll of factor V leiden in recurrent abortion,

Key words: Factor V Leiden, Factor II G20210A, Recurrent abortion

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O- 63 Role of HLA-Typing in Recurrent Abortion

The Antigens types of HLA-DR and HLA-DQ of (14) fertile multiparious Syrian couples(controls) were defined by micro lymphocytotoxicity test (Terazaki method) . In the same time, antigen types of DR and DQ of (36) Healthy Syrian couples suffering from recurrent abortions were defined by the same technique.
The results indicate different antigen pattern distribution between control and diseased groups. The frequencies in control group for DR types were ase the following: DR4:29%, DR11:18%, DR15:14%, DR1: 7%, DR7: 7%, DR8:7%, DR16:7%, DR3:4%, DR12:4%, DR14:4% .
And in the diseased group were : DR4:18% , DR11:18%, DR7:11%, DR1 :10%, DR14:7% , DR17:7% , DR13:6% , DR15:6% , DR8:6%, DR3:4%, DR12: 3%, DR9:1%, DR10:1%, DR16:1%, DR18:1% .The frequencies in control group for DQ types were: DQ3:29% , DQ4:25% , DQ5:21 %

DQ2:14% , DQ6:11% . And in the diseased group were : DQ3:28% , DQ5:25% , DQ2:18% , DQ4:15% , DQ6:14% . The obvious frequency changes for DR types were : DR1, DR7, DR4, D15, DR13, DR17, DR14 . and for DQ types were : DQ2, DQ4, DQ5, DQ. The differences between the frequency patterns of DR and DQ Antigen types between control and diseased groups between control . and diseased groups are probably a major causes of recurrent abortions. The distribution patterns in the control group are similar to that found in the Syrian population by others.

Key Words: Recurrent abortion, HLA-DR, HLA-DQ

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O-64 Efficacy of Low dose Aspirin & Low-molecular-weight- heparin treatment in women with recurrent first trimester pregnancy loss

Objective: To evaluate the use of low-molecular-weight-heparin (LMWH) in combination with low dose aspirin (LDA) in the treatments of patients with recurrent first trimester pregnancy loss and to compare the results with the use of aspirin alone.

Design: Retrospective controlled study

Setting: Department of obstetrics & gynaecology at Misurata Teaching Hospital.

Subjects and methods: Medical records of 70 patients, who had been into the gynaecology and obstetric department with the history of three or more first trimester pregnancy losses during the period from July 2007 through January 2009, were reviewed and divided into three groups. Group A (30): women were offered treatment with LDA of 75 mg daily in addition to LMWH of 40 mg enoxaparin sodium, (Lovenox), or 3075 IU nadroparin calcium, (Fraxiparin), both were given subcutaneously once daily. Treatment started with the menstruation preceding the conception attempt. Group B (25): women were given only LDA of 75 mg daily commenced 4 weeks after conception. Group C (15): as controls and including women who did not receive any treatment. Both groups of A&B were offered the treatment regardless of their anticardiolipin and antiphospholipid status, and continued up to 36 weeks gestation. They had systematic blood samples for platelets counts at least every 2 weeks during the first 2 months of treatment and then monthly. The data collected were analysed using student's t test or Chi squared test, $P< 0.05$ was considered to be statistically significant.

Results: Live birth rate was significantly higher ($P< 0.05$) in the group treated with combined LDA & LMWH, 26 (86.66%) delivered a viable infant, only 4 (13.33%) miscarried, while those in group B, 17 (68%) delivered a viable infant and 8 (32%) miscarried. The abortion rate was higher in the control group, (53.33%). No bleeding or thromboembolic complications were noted in either of the two treatment groups.

Conclusion: The combination of LDA & LMWH has a high beneficial effect over the use of aspirin alone on live birth rate in patients with recurrent first trimester pregnancy loss.

Key Words: Low-molecular-weight heparin, enoxaparin, fraxiparin, recurrent pregnancy loss

F M Essadi (Libya)

O- 65 The role of IL-2 and rheumatoid factor in recurrent spontaneous abortion

Introduction: Recurrent spontaneous abortion (RSA), the repetition of three or more consecutive abortions, occurs in approximately 1-2% of reproductive-aged women. It has been postulated that a number of repeated pregnancy losses may be related to immune causes. The purpose of this study was to determine the role of Interleukin (IL)-2and Rheumatoid Factor (RF) in RSA.

Materials and methods: This case control study was carried out on two different groups. Group I consisted of fifty-six women with a history of three or more RSA and group II consisted of sixty-three healthy women who have had no abortion history, with at least one successful pregnancy. The sera were examined for the presence of IL-2 by ELISA method, and RF by latex agglutination test.

Results: Two out of 56 women in group I had IL-2 in serum. None of the women in group II had IL-2 in serum. Also, 53.5% of women in group I and 6% of women in group II were positive for RF in different titers. There were significant differences between groups I and II for RF (P = 0.002).

Conclusions: Serum IL-2 concentration does not affect pregnancy outcome, and the prevalence of RF in RSA women was higher than in normal controls. It is therefore recommended that the role of RF in pregnancy outcome should be investigated.

Keywords: IL-2; rheumatoid factor; recurrent spontaneous abortion

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O-66 Human Cloning, the Holy Quran, and Divine Presumptions

Human Cloning is one of the recent modern events which will, before long, affect all aspects of life and the future of man. Cloning a living being is defined as asexual reproduction. Cloning a human being means reproduction without impregnation by the sperm and ovum. In this process[i], the genetic substance of the female ovum is moved and the genetic substance of a somatic cell of the male or female is replaced. Human Cloning and the probability of producing a generation in which one sex serves as the determiner of genetic characteristics of the fetus and its origin have provoked a number of questions worldwide, and caused various scientific and religious challenges.

Introduction

Once the news of the production of the first cloned mammal (a sheep named Dolly) by a group of Scottish scientists under the supervision of Ian Wilmut was broadcast, the probability of human

cloning came into existence, creating anxieties amongst humans. The reaction of monotheists regarding cloning, however, brought about serious concern in many scientific and religious circles. Scholars, on one hand, have concern regarding the human cloning , on the other, don't consider it a contradictory between science and religion. It must be taken into consideration that the most important principle and source of knowledge about Divine injunctions, as the basis of Islam, is the Holy Quran, to the extent that legal and social laws and regulations are rooted in Quranic verses and conducts of the holy Prophet of Islam. Therefore, without consideration and research in this area, Muslim scholars could not legitimize a new area of a study. Additionally, to initially evaluate a phenomenon, all scientific information must be handed down. The Holy Quran in many verses calls for reflection and ponder, and then Muslim must deeply consider new matters that have not previously existed, in order to extend to high peaks of new areas. Aiming not to prove or reject cloning, the Quranic references are studied to reach a common theory between Muslim thinkers and solve the present challenges of cloning. May this work be a humble service towards the Holy Quran.

Result

Through studying the views and comparing them to the Quranic exegeses of Shiite and Sunnite, the findings are as follow:

1- Human cloning is not contradictory to any religious and doctrinal concept in Islam and to any verse of the holy Quran[1].

2- This technique not only does not contradict the presumptions of the existence, but also is a way to discover some presumptions of Allah and is under the order of cause and effect of the world.[1]

3- Since Islam calls mankind for cogitating and thinking, this technic is not considered as a challenge to human beliefs and is not a change in the divine creation.[1]

4- Cloning is not giving life but it is utilizing the life bestowed by Allah, the Almighty.

Keywords: Quranic and Hadīth Evidences, Human Cloning, Divine Presumptions, Doctrinal Views

[1] . SCNT (Somatic Cell Nuclear Transfer)

[2] . See Qur: 4/117-119

[3] . See Qur: 49/13 & 30/22

[4] . See "A Letter From Rabetat al-Alam al-Islami in Mecca about 'Istinsākh of Human. 5/2/2003".

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O- 67 Effect of oral N-acetyl cysteine on recurrent preterm labor following treatment for bacterial vaginosis

Objective: To evaluate the effect of N-acetyl cysteine (NAC) on gestational age at delivery in women with previous preterm labor and bacterial vaginosis. Methods: A randomized, double-blind, placebo-controlled trial with 280 women between 16 and 18 weeks of pregnancy who had 1 previous preterm birth and had just been successfully treated for bacterial vaginosis with metronidazole for 1 week. The women were randomized to receive 0.6 g of NAC per day plus 17-hydroxyprogesterone caproate (17-OHPC) or placebo plus
17-OHPC until 36 completed weeks of pregnancy or active labor. A vaginal swab was taken during labor.
Results: Reaching 36 weeks of pregnancy was more frequent (Pb0.05) and gestational age at delivery was significantly higher in the NAC than in the placebo group (37.4 weeks±0.4 weeks vs 34.1 weeks±1.2 weeks, Pb0.05). The discontinuation rate was 11.4% in the NAC group. Conclusions: Oral NAC was found to reduce the recurrence of preterm birth in patients with bacterial vaginosis.

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O- 68 Effect of Supplementation of Zinc on Count, Motility and in vitro Fertilization Capacity of Spermatozoa of Magnetic Field Exposed Rats

The aim of this study was to investigate the preventive effect of zinc on count, motility and fertilization capacity of rat spermatozoa that exposed to 1.5 Tesla magnetic fields. Thirty two adult male rats were subdivided randomly to 4 groups: group 1, serve as untreated controls; group 2, was exposed to the magnetic field for 30 min but received no additional treatment; groups 3 and 4, were exposed to a magnetic field for 30 min and received 200 and 500 ppm zinc sulfate oral daily, respectively. After 50 days all rats were killed and their epidydimises were removed. Then after incubation of sperm in the incubator within 37°C and 5% CO2 for 1 h, the sperms count and motility were examined by an inverted microscope. For in vitro fertilization at first the sperm suspension of different groups of rats added to the freshly ovulated ova than combined sperm-oocyte suspension was incubated for 4-6 h. Sperm counts in 1 g of the epididymis were 2998.7±322.70 in group 1 and in groups.

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O-69 Female Genital Plastic Surgery for gynecologic anomalies

Female Genital Plastic Surgery is a relatively new entry in the field of Cosmetic and Plastic Surgery. It has promised sexual enhancement and functional and cosmetic improvement for women. Microssurgical reconstructive correction of gynecologic anomalies is a good example of female genital plastic surgery. In this lecture, a detailed discussion of the gynecologic anomalies will be addressed followed by identification of the role of endoscopic and microsurgical reconstructive surgery in treating gynecologic anomalies. Examples of modern refinements of vaginoplasty, metroplasty, and vulvoplasty techniques will be demonstrated.

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O- 70 Morphometry assessment of human immature oocytes after in-vitro maturation

Introduction: 15% of oocytes are immature(11% GV, 4% M1) in ART cycles. The aim of this study was to determine morphometry assessment of human immature oocytes after IVM comprising dimensions of each oocyte: diameters of the whole cell and ooplasm, width of zona pellucida(ZP), perimeter and area of oocyte, perimeter and area of ooplasm, and volumes of whole oocyte and ooplasm.

Materials and Methods : 43 women between ages 21-41 year-old (29.39±5.92) who underwent controlled ovarian stimulation for ART were included in this study. Oocytes were randomly divided into 2 groups including: GV (72) and MI (29). All oocytes underwent in-vitro maturation technology with Ham's F10 supplemented with 0.75 IU FSH, 0.75 IU LH and 40% human follicular fluid (HFF). After 48 hr of incubation, they were assessed for rates of maturation, as well as morphometrical parameters using cornus program.

Result: The rates of maturity was 70.8% for GV and 44.8% for MI oocytes after IVM. The mean oocyte diameter (µm) in GV and MI oocytes were 155.9±6.7 and 158.01±6.6, respectively ($p > 0.05$). Other parameters of ooplasm diameter, ZP, oocyte area and perimeters, ooplasm area and perimeter were similar in GV and MI oocytes. The data also showed that oocyte and ooplasm volumes were not different when compared between GV and MI group ($p > 0.05$).

Conclusions: GV oocytes were more successful in IVM technology. No statistical differences were noticed in morphometry assessment between GV and MI oocytes after maturation.

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O- 71 THE CAUSES OF HIGH INFANT MORTALITY IN NORTHERN UGANDA

The research focuses on establishing the causes of high infant mortality in the northern Uganda. The study aimed at providing a clear basis for policy measures so as to reduce or curb down the

high levels of infant mortality in the northern part of Uganda. The study used secondary data from the 2006 Uganda Demographic Health Surveys (UDHS).

In this study, the sample size of 8369 women aged 15-49 was used of which sample size was further extracted to obtain only for the northern Uganda which sample size was 1861 and it is upon which all the summary, conclusions and recommendations were based. The data enabled establishment of different socio-economic and demographic causes of infant mortality among women in northern Uganda. The study used both socio-economic and demographic variable namely education level, religion, wealth status, marital status, age of the mother at first birth and birth interval. The data was analyzed using SPSS at both Univariate and Bivariate Level.

Most respondents were married, Catholics and poor with 76 percent, 27 percent and 67 percent respectively. A significant relationship was established between mother's age at first birth, birth interval and infants dead for those which were demographic in nature, as well as education level, religion, marital status and wealth index for socio-economic variables of which all factors were statistically significant with infant mortality.

Recommendations emphasized education of the girl, Sensitization about the importance of immunization to the people, Non- government organization extending their services to needy areas in order to help rural women and their young ones have a health life. In addition it could also be done by constructing health facilities so as to supplement the few existing government and private facilities.

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O-72 Intracytoplasmic Morphologically Selected Sperm Injection (IMSI):Is it a good choice after two or more IVF or ICSI failures?

Background: Sperm morphology plays a significant role in assisted reproductive technologies and is associated with high fertilization and implantation rates. The objective of this study is to evaluate the outcome of IMSI after repeated failures of conventional IVF or ICSI techniques.

Methods: In a prospective study in which couples act as their own control, 75 infertile couples were offered IMSI after, at least, two previous IVF or ICSI failures, and regardless of the initial sperm evaluation. Main outcome measures were: fertilization rate, embryo quality, and number of blastocysts obtained.

Results: Fertilization rates were significantly increased in IMSI compared to control cycles (72.2% versus 63.3%; p=0.02). The percentage of top embryos obtained at day 2 was also increased in IMSI compared to previous cycle (89.8% versus 79.8%; p=0.009). Extended embryo culture up to the blastocyst stage was possible in 41.3% of IMSI cycles versus 26.7% of IVF/ICSI cycles (p=0.04). In these cases, the mean number of blastocysts obtained was higher in IMSI cycles (1.5 ± 1.9) than in IVF/ICSI cycles (1.0 ± 1.2) (p=0.03). While no ongoing pregnancy was encountered in previous cycles, IMSI treatment resulted in clinical pregnancy and birth rates of respectively 29.3% and 18.6%.

Conclusion: After at least two IVF/ICSI failures, IMSI seems to give better fertilization rates, more top embryos at day 2 and more blastocysts at day 5/6 which allows more blastocyst transfers. This study supports the use of motile sperm morphology examination as an independent test to be proposed after repeated IVF or ICSI failures.

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O-73 Follicular dynamic and immunoreaction of the vitrified ovarian graft after treatment of the host with variable regimens of melatonin

Introduction: This study evaluates dose-dependent effects of melatonin on vitrified ovarian transplanted into ovariectomized mature mice.

Methods: Ovaries from neonate female inbred (Balb/c) mice were vitrified-thawed and grafted heterotopically into ovariectomized mature mice. After ovarian specimens transplanted, melatonin (20, 50, 100, 200 mg/kg/day or saline) were applied via gavage to separate groups. Donor-specific IgM and IgG subtype antibodies, Th1 (IL-2 and IFN-γ) and Th2 (IL-4 and IL-10) cytokines and melatonin in the serum of recipients were measured using ELISA analyses. The subsequent survival (days 1-8 and 32) of the grafted ovaries was scored. Cell apoptosis (TUNEL assay) within cumulus-oocyte complexes and stromal cells of tissue grafts were determined on the days mentioned above to examine of follicular viability.

Results: Our study showed that treatment with melatonin resulted in dose-dependent, in which with increasing doses of melatonin the apoptosis in the follicle density was increased, while the ovarian graft lifespan was prolonged. Furthermore, with increasing doses of melatonin, overall mean percentage both of healthy primordial follicles and follicles entering the next maturation stage was reduced. The ovary size was reduced as well, **although it was not significant.** Allospecific IgM and also IgG2a of recipients were reduced with increasing doses of melatonin. With increasing melatonin, the average level of Th1 cytokines was marked reduced. However, the effect on Th2 cytokines was less pronounced. The variable regimens of melatonin caused higher peak melatonin levels after transplantation.

Conclusions: These findings indicate a novel therapeutic approach, based on modulation of the immune and ischemia/reperfusion axises through melatonin as a possible future immunosuppressant and antioxidant in organ transplantation.

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O- 74 First polar body (PB) morphology does not predict rates of fertilization and embryo development in ICSI cycles

Introduction: Recent studies demonstrated that 1PB morphology is related to mature oocyte viability, which can be used as a prognostic tool to predict oocyte performance and pregnancy achievement in ICSI program. Some studies found a correlation between oocyte performance and 1PB morphology, while others have not shown any correlation. In this prospective clinical trial, we

evaluated the role of 1PB morphology on rates of fertilization and embryo development in ICSI cases.

Materials and methods: Morphological characteristics of 470 MII oocytes were assessed in 80 ICSI cycles. The women aged between 21-42 years old (mean ± SD: 32.6±5.3), and oocytes retrieved after hyperstimulation protocol. After denudation, all oocyte evaluated for 1PB morphology. The oocytes were divided into two groups of A (normal intact 1PB) and B (abnormal fragmented 1PB). Also, other abnormalities, such as refractile bodies (RF), wide previtelline space (wPVS), central and general granulation, bull eye, vacuole, smooth endoplasmic reticulum cluster (SERc), debris in PVS, irregular shape, and dark oocyte were checked.

Results: 27% of oocytes were with fragmented 1PB, while the rest were associated with other morphological abnormalities. 46.1% and 26.9% showed with double and multiple defects, respectively. RF was the most abnormality observed in group B. There was no significant difference for women age between A and B groups, 32.3±5.4 and 32.8±5, respectively. A total of 179 and 107 oocytes (61.5% vs 59.8%) were fertilized in groups A and B, respectively. There was no significant relationship between A and B groups in oocyte fertilization rate. The rates of good embryo formation for A and B groups were 66.5% and 55.6%, and cleavage rates were 77.7% and 68.5%, respectively. The embryo development rates were not significant in two groups.

Conclusion: The data demonstrated that 1PB morphology does not appear to be a prognostic factor for rates of fertilization and embryo development in ICSI cycles.

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O-75 In Vitro Indicators of Quality in Laboratory Assisted Reproduction Technology: Proposal for Setting Parametric Values as Criteria for In Vitro Quality Management for Cleavage Stage Transfers

Introduction: In addition to existing methods of internal quality control **t**here is a need to identify in vitro indicators that could be used to monitor quality in the laboratory. With identification of reliable indicators of in vitro quality it may be possible to aim for improved treatment outcome. The objective of this study is to identify indicators of laboratory quality that could be used to aim for ≥45% clinical pregnancy rate (CPR) per oocyte retrieval (OR) for day 2 cleavage stage embryos.

Materials and methods: Retrospective analysis of laboratory data during 2 periods when CPRs were good (48.2% & 46.9%) or during a period of very poor CPR (16%) respectively were undertaken to identify sensitive indicators of in vitro quality. Parameters investigated were: fertilization rate (FR), zygote arrest rate (ZAR), mean blastomere number (MBN), mean embryo grade (MEG) [Embryos graded: 4 = excellent, 3=good,, 2=average, 1=poor], proportion of day 2 embryos at or above normal blastomere number (%≥NBN), proportion of embryos at or above a score of "good" quality (%≥GEQ). Up to a maximum of 2 day-2 embryos were transferred. The data was statistically analyzed using Statistix ™ and Medcalc ™ statistical programs.

Results: Values obtained for each group respectively for various parameter were: FR, 80.4, 75.5, 56.4%; ZAR, .4, 7.7, 17.7% ; MBN, 3.7 SD1.1, 3.9SD1.9, 3.6SD1.1; MEG, 3.0SD0.7; 3.0SD1.0, 3.0SD1.0; %≥NBN, 65.0, 62.3, 65.8%; %≥GEQ, 68.0, 63.8, 65. While all parameters appear to have an effect on the CPR however fertilization and zygote arrest rates appear to impact CPR more consistently. Fertilization rates appears to have a direct effect such that the higher the fertilization rate, higher the CPR (FRs of 80.4, 75.5, 56.4% showed CPRs of 48.2, 46.9, 16.0% respectively) whereas the zygote arrest rate has an inverse effect such that the lower the arrest rate the higher the CPR (ZARs of 3.4, 7.7, 17.7% gave CPRs of 48.2, 46.9, 16.0% respectively).

These parameters were significantly different between groups that gave higher CPRs (48.2%, 46.9%), compared to the group with a poor CPR of 16%. The rate of embryo development and embryo quality also has an impact on the pregnancy rate.

Discussion and conclusion: We have noted FR and ZAR to be very sensitive indicators of culture conditions and potentially useful predictors of subsequent embryo quality and pregnancy. Efforts must be made to maximize FR and minimize ZAR. The FR and ZAR, in particular, appear to be critical parameters that reflects on the quality of the culture conditions employed. While the findings of this small study can only be considered preliminary, it is however reasonable to speculate that a FR of >80% and a ZAR of <3.5% need be the target objectives of all treatment cycles. This can be achieved through meticulous insemination techniques and overall culture conditions that strive towards perfection. It is proposed that if these can be achieved a CPR of ≥45% per OR can be anticipated.

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O- 76 Comparison of In-Vitro Maturation of human oocytes in germinal vesicle with Metaphase-I stage

Introduction: Germinal vesicle (GV) and metaphase-I (MI) are considered as immature oocytes. 85% of retrieved oocytes are mature (MII), 4% are at MI stage and the rest are at the GV stage. These immature oocytes should be first matured in vitro (IVM), so they may be used in IVF program. The aim was to compare the in- vitro maturity potentials of GV with MI oocytes in a clinical setting.

Materials & methods: 103 immature oocytes were retrieved from 42 ovarian stimulated cycles enrolled for ICSI program. The women aged between 19-40 year-old (mean 28.5±6.5 years). 69 oocytes were at GV, and 34 oocytes at MI stage underwent IVM technology. The oocytes were assessed for 48 h, and the rates of maturity were recorded.The maturation medium was Ham's F10 supplemented with 0.75 IU FSH, 0.75 IU LH (Menogon) and 40% human follicular fluid (hFF).

Results: The rates of maturity for MI and GV oocytes were 47.1% and 68.1%, respectively. Also, the rates of maturity of GV-MI oocytes in women under age of 30 year was 60.7%, and 59.5% in older women.

Conclusions: The rate of maturity was higher in GV oocytes, which may be related to the protective role of nuclear membrane and condensed nuclear materials. Therefore, use of GV oocytes in IVM program is more promissing.

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O- 77 Polycystic ovary syndrome : metabolic time bomb.

Polycystic Ovary Syndrome(PCOS) is the most common endocrinopathy
in the reproductive age women. Many patients might present with endocrinological abnormalities including hirsutism, menstrual irregularities and infertility, however , a significant number of these patients have severe metabolic abnormalities. Such abnormalities might impose a significant health risk including insulin resistance, diabetes mellitus, hypertension and dyslipidemia . Early awareness , detection and treatment will definitely improve the health status of this population of patients. The objectives of this presentation is to discuss the metabolic abnormalities in PCOS patients, early detection and different management options.

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O-78 Comparison of stimulation protocols efficacy on pregnancy outcomes in poor responders undergoing IVF

Introduction: Poor respond to controlled ovarian hyper stimulation is one of the greatest challenges in assisted reproduction which may occur in 9%-24% of the women undergoing in-vitro fertilization (IVF) and accompany with high rate of cycle cancellation and low rate of pregnancies. Despite several investigations, there is still no consensus regarding the efficacy of the proper protocols for management of poor responders. The aim of this study is to compare the efficacy of different stimulation protocols on pregnancy outcomes in poor responders undergoing IVF.

Material & Methods: This is a retrospective study to compare the efficacy of four different protocols including long, short, miniflare and antagonist on pregnancy outcomes in poor responders. This investigation was performed on 566 patients who were candidates for IVF during a 2 year period and were considered as poor responders. Main outcome measures included the total number of oocytes and mature oocytes retrieved, pregnancy rates, implantation and overall cancellation rates which were assessed and compared between four mentioned groups.

Results: There were significant differences in duration of stimulation and doses of gonadotropins required. The mean number of oocytes and mature oocytes retrieved were significantly higher in long versus miniflare(4.7±.41 vs 3.26±.17 and 3.68±.26 vs 2.65±±.13 respectively).There were no differences among the implantation, pregnancy and overall cancellation rates between four groups.

Conclusions: The present study demonstrates that the application of four different protocols in poor respond patients leads to similar IVF outcomes, even though GnRH-a long protocol yields more retrieved oocytes and more mature oocytes when compared to miniflare protocol.

Key words: *IVF, poor responders, pregnancy outcomes, short protocol, long protocol, antagonist protocol, miniflare protocol*

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O-79 Hysteroscopic tubal ligation by using bipolar ball electrode before IVF:

We face failure of pregnancy in IVF patients with hydrosalpinx or recurrence genital infection so we decide to conduct prospective study about hysteroscopic tubal ligation, before IVF in those cases and our aims of the study are:

-To verify efficacy of hysteroscopic tubal ligation by using bipolar ball electrode.

-To assist success pregnancy rates in IVF patients after hysteroscopic tubal closure.

Material and methods: The prospective study started from 3 march 2009 to 2 march 2010 in Nafeh private hospital in Aleppo.

Number of the patients was 30 patients and their ages were between 28 to 34years.

All the patients had one or more of the following indications,and22 patients were previous 2 IVF failures and 8 patients were previous 3 IVF failures.

Materials:

1_hysterscope 30º,2.9mm

2_bipolar ball electrode 5fr.

3_irigation pump (local fabrication)

4_endoscopic tower

Technique:

Patient in lithotomy position.

Giving analgesic like dormita.

Insert hysteroscope 2,9 mm intra vaginal and cervix to reach uterine cavity by using normal saline.

Insert the bipolar electrode in the channel 5 french of hysteroscope.

Insert the electrode intra mural portion of the tube until 1,5 cm and activate the bipolar energy for one minute in two steps , then repeat the same process in the another side.

After 2 months hysterosalpingography had done to verify tubal closure and efficacy of the method.

Indications:

1_ Bilateral distal tubal closure (HSG)

2_Moderate to severe large hydrosalpinx

3_Chronic PID.

4_Severe adhesions after PID.

5_Recurrence genital sexual diseases

6_Moderate to severe endometriosis with more than 5 years treated infertility

7_Bilateral remnant proximal tube with previous bilateral partial salpingectomy
(ectopic pregnancy)

Results: The technique was failure in two patients ,in one side in the first patient and in both sides in the another ,because of severe large hydrosalpinx and then we did laproscopic salpingectomy, 28 patients were undergoing the IVF after 3 months of tubal ligation ,and the pregnancy was achieved in 6 from 20 by rate of 30% , and in 3 from 8 by rate of 37,5 %.

There was no difference in number of the eggs retrieval before and after hysterscopic tubal ligation.

Conclusions: Hysteroscopic tubal closure by using bipolar electrode is simple ,safe and effective technique.

The technique achieves between30_37% success pregnancy rate in IVF patients.

The results of our study give us opportunity to apply routinely hysteroscopic tubal ligation in previous indications before IVF program .

Key words: Hysterscopic tubal ligation ,Bipolar electrode, Hydrosalpinx ,Sexual transmited diseases

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O-80 Can dopamine agonists reduce the incidence and severity of OHSS in IVF/ICSI treatment cycles? A systematic review and meta-analysis

Introduction: Recently, dopamine agonists were proposed as a prophylactic treatment for ovarian hyperstimulation syndrome (OHSS) in women at high risk in IVF/ICSI treatment cycles. **MATERIALS &METHODS**: We conducted a systematic review and meta-analysis of randomized trials comparing the prophylactic effect of the dopamine agonist, cabergoline, versus no treatment in IVF/ICSI cycles. Primary outcome was OHSS incidence per randomized woman. Secondary outcomes were live birth rate, ongoing pregnancy rate, clinical pregnancy rate and miscarriage rate. Searches (until September 2009) were conducted in MEDLINE, EMBASE, Science Direct, Cochrane Library and databases of abstracts. **RESULTS**: Four randomized trials entailing 570 women were included. There was evidence of a statistically significant reduction in the incidence of OHSS in the cabergoline group (OR 0.41, 95% CI 0.25-0.66) with an absolute risk reduction of 12% (95% CI 6.1-18.2%), but there was no statistically significant evidence of a reduction in severe OHSS (OR 0.50, 95% CI 0.20-1.26). There was no evidence for a difference in clinical pregnancy rate (OR 1.07, 95% CI 0.70-1.62) and miscarriage rate (OR 0.31, 95% CI 0.03-3.07). **CONCLUSION**: Prophylactic treatment with the dopamine agonist, cabergoline, reduces the incidence, but not the severity of OHSS, without compromising pregnancy outcomes.

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O-81 Genetics and Reproduction

Chromosomal abnormalities are more frequent in infertile couple than in the general population. Caryotype testing is rarely demanded in the Middle East countries. And abnormal management in patient with translocation or chromosomal problem happen.

Case presentation will be presented with genetic problem translocation and numerical problems. Then a review of the incidence of genetic abnormalities will be presented in different population in reproductive medicine to show the importance of these testing.

Indication and a literature review for chromosomal testing in infertile couple will be presented. What you should do when a translocation is found in a infertile couple.

A cost effective approach is presented to compare the number of abnormal testing " normal" that we found in infertile couple file.

Conclusion; Genetics is everywhere you will know only if you ask for the test. And you will treat depending on the test you shoul think genetics.

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O-82 Effect of forced swimming stress on count, motility and fertilization capacity of the sperm in adult rats Aims:

The purpose of this study was to determine whether 50 days of forced swimming stress applied to adult male rats affects count, motility and fertilization capacity of sperm. Settings and Design: It is a prospective study designed in vitro. Materials and Methods: A total 30 adult male wistar rats were used in this study. All rats were divided into two equal groups (n = 15): (1) control group and (2) experimental group. Animals of the experimental group were submitted to force swimming stress for 3 min in water at 32°C daily for 50 days. Then, all male rats were sacrificed, the right epididymides were removed and sperm concentration and motility were determined. The sperm suspension was added to the ova. Fertilization capacity was assessed by counting two-cell embryos 24-26 h after completion of fertilization in vitro. Statistical Analysis Used: Data are reported as mean ± SD and percentage. The difference between the control and experimental groups was determined by the unpaired t-test. Results: The mean.

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Poster Presentation

P- 01 Poster Clinical Study In Men With Infertility

Objectives: The aims of this case-control study were to identify the prevalence of the clinical & laboratory risk factors for male infertility among infertile men in Hilla city.Also to identify the seminal fluid patterns in these subfertile men as well as in fertile controls and to demonstrate the types of serum hormones (Follice Stimulating Hormone(FSH),Leutinizing(LH),Testosterone and Prolactin) abnormalities in the study groups Materials and methods: This study included 81 Iraqi subfertile men and 30 fertile men who fulfilled the selection criteria.Relevant history and physical examination were obtained.Besides, seminal fluid analysis (SFA) was performed according to WHO method.The patients group was subdivided by SFA results into azoospermic ,oligoasthenozoospermic and oligozoospermic subgroups. Serum levels of the hormones (Testosterone, FSH ,LH and Prolactin) were measured for patients and controls using ELIZA immunoassays. Seminal fluid analysis parameters mean levels and serum hormones levels were compared for the groups using Analysis of Variance test. Results: Some clinical risk factors for male infertility appeared to be more prevalent in infertile men than in controls.These include history of wife's abortion,decreased libido,low socio-economic status,low use of contraceptives,family history of infertility, chronic diseases, varicocele,scrotal surgery,testicular biopsy,smoking,excessive heat exposure and atrophied testes. Subfertile men showed lower values for SFA parameters than did the controls .Patients with azoospermia showed the most remarkable hormonal abnormalities especially in the levels of serum FSH and Testosterone. There was significant differences in the serum sex hormones levels between the patients and controls groups and among the infertile men subgroups. Conclusion: Iraqi infertile men have certain clinical , seminal and hormonal abnormalities which are different from fertile controls.Moreover, the differences are present between patients subgroups themselves and these abnormalities are multi-components.Patients with low sperm concentration and especially those with azoospermia are those that most likely will get benefit from hormonal assays. Serum FSH and Testosterone are the best 2 hormones for initial male infertility evaluation

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P- 02 Poster Effect of ultrasound on Parthenogenic Activation of mouse oocyte

Introduction: Artificial stimulation of mouse oocyte, in the absence of any contribution of sperm, can induce parthenogenic activation of oocyte. One of the most new methods for artificial activation in mammal's oocytes is utilization of ultrasound, that its success in pig oocyte activation has been recently reported. Our objective was to assess the effect of ultrasound on mouse oocyte activation.

Material and methods: our groups were consisted of 1 control, 3 experiment groups (with 1, 2 and 3 replicates of ultrasound exposure and 3 sham groups (all treatments were similar to experiment groups but ultrasound system was off during exposure).
In experiment groups, adult female NMRI mice at interval between PMSG and HCG injection, were exposed to continuous ultrasound with 3.28 MHz frequency and I_{PK} (peak intensity) = 355 mW/cm^2.
16 h after injection of HCG, mice were euthanized and their oocytes were collected, thereafter, parthenogenic oocytes were counted.
Results: Data analysis using the ANOVA test shows a significant increase in the number of partenigenic oocyte in those mice with 3 overall exposures of ovaries to ultrasound ($P < 0.05$).
A significant decrease in the number of MII oocytes was also seen in mice with ultrasound treatment ($P < 0.05$).
Conclusion: Ultrasound is thought to induce the generation of pores in the oocyte membrane and leaves easier inward transport of ca^{++} into the oocyte. This phenomenon can induce meiosis resumption in immature oocytes. With increase in exposure repetition from 1 to 3 times, and more arrival of ca^{++}, oocytes can be activating parthenogentically.

Key words: ultrasound, parthenogenic activation, mouse oocyte

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P-03 Poster Metformin versus laparoscopic ovarian drilling in clomiphene citrate resistant polycystic ovary syndrome.

This is a randomized clinical trial conducted to compare the efficacy of metformin versus laparoscopic ovarian drilling (LOD) in the management of anovulatory women with clomiphene citrate resistant polycystic ovary syndrome. Setting: Depatment of OB/GYN, Sohag University Hospital. Methods: Forty six Clomiphene citrate resistant PCO patients were recruited in this study & randomized into two groups (23 for each group). Group I recieved 1500 mg Metformin daily in three divided doses for 8 weeks, while group Π underwent Laparoscopic ovarian drilling.The clinical criteria for both groups were recorded in addition to measurement of the hormonal level of FSH,LH,Total Testosterone before and after treatment. The outcome measures such as,ovualtion rate, pregnancy rate, side effects, take home baby & abortion rate were recorded for both groups. Results: There was no significant difference between the 2 groups niether in clinical criteria nor in the other outcome measures.There was significant reduction in the level of LH & Testosterone with significant increase in FSH level after treatment in both groups ($P<0.05$). Ovulation rate & pregnancy rate were signifcantly higher in group Π than group I (82% versus 52% (RR 1.5{0.95-

2.3}& 59% versus 39% (RR-95%CI{1.4{0.77-2.69}) respectively. On the other hand abortion rate was significantly lower in group Π than in group I (11% versus 15% RR-95%CI { 1.38{0.14-13.07}). Conclusion: Although Metformin group achieved lower pregnancy rate, it seems safe, effective & economically reasonable option for treatement of clomiphene citrate resistant PCO patients and Laparoscopic ovarian drilling should be kept as the last resort because of its cost, invasiveness & surgical complications. Key words: polycystic ovary syndrome, insulin sensitizing agents, laparoscopic ovarian drilling.

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P-04 Poster Ectopic pregnancy (EP) in IVF patients

Introduction: our objective is to review the incidence of (EP) among IVF pregnancies and distribution of different locations of EP.
Material & method: We reviewed charts of all pregnancies resulted from IVF at the Syrian fertility center in the period 2000-2009
Results : >From 2000-2009, 54 ectopic pregnancies were diagnosed as a result of IVF treatment. In the same period 5366 pregnancies resulted from all other patients undergoing IVF treatment at our center. incidence rate of ectopic pregnancies was (1%). Locations of ectopic pregnancies were as follows Tubal: 38 cases (70 %) , Ovarian 2 (3%), Abdominal 1 (2%), Cervical 3 (5%), and heterotopic pregnancies 10 cases (19%). Heterotopic pregnancies were as follows: 9 tubal and 1 corneal coexisting with intrauterine pregnancies. All heterotopic pregnancies underwent surgery either laparotomy or laparoscopy. 7 out of the 10 aborted after the surgery, three delivered 4 term children (one set of twins).
Conclusion: Ectopic pregnancy in IVF programs is not much higher than its rate in natural pregnancies.
Key words: IVF, Ectopic pregnancy

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P- 05 Poster Efficacy of L-carnitine in asthenozoospermic Iraqi patients

Objective : The aim of the study was to assess the efficacy of L-carnitine on sperm motility in a group of patients with unexplained asthenozoospermia in Hilla City, Iraq Material and Methods : In this randomized placebo-controlled clinical trail , fifty patients who fulfilled the inclusion criteria were put on a dose of 2 g/day of oral L-carnitine for 3 months and served as patients group.Twenty patients were put on placebo as control.The consent of all patients and control was obtained. Sperm parameters were studied before and after this treatment. Semen analysis was performed according to the latest published guidlined of WHO Results : The percentage of motile

spermatozoa in patient group increased from 22.1 ± 3.2% to 35 ± 2.4% (P < 0.01); the percentage of spermatozoa with Grade A motility increased from 8.7 ± 1.4% to 15.9 ± 1.8% (P < 0.01); No significant changes were observed in other seminal fluid analysis parameters neither in patients nor in control group. Conclusion : oral L-carnitine may improve sperm motility and quality in patients with idiopathic asthenozoospermia and should be considered in the treatment of such cases. Keyword : male infertility, asthenozoospermia, L-carnitine

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P- 06 Poster A Successful Induction of Lactation in Surrogate Pregnancy with Metoclopramide and Review of Lactation Induction

In surrogate pregnancies genetic parents have little opportunity for early bonding with their infants, either prenatally (in utero) or during the immediate postnatal period. Procedures commonly used to induce lactation include both pharmacologic and nonpharmacologic methods, often in combination. Studies reporting induced lactation are sparse, due to the rarity of augmented lactation. Here we report a case of lactation induction following a surrogate pregnancy. Other methods that can be used to augment lactation are described below. We used metoclopramide in this case due to the success rates reported in previous studies and case reports. Additionally, it is a well tolerated and safe agent.

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P- 07 Poster IUI for Hypogonadotropic Hypogonadism women

Introduction: Female Hypogonadotropic hypogonadism (HH) is a well known disorder which is characterized by very low levels of FSH, LH and Estrogens.

Treatment by hMG is well-known and effective therapy in achieving pregnancy.

We aimed to compare IUI and timed intercourse in conjunction of hMG treatment for women with HH.

Material & Methods: 59 HH women were treated with hMG. Ovulatory cycles were divided into 2 groups; GROUP1: ovulatory cycles with timed intercourse. GROUP2: ovulatory cycles with IUI.

Results: 52 cycles were assigned to timed intercourse resulted in 20 pregnancies 38%

33 cycles were assigned to IUI resulted in 10 pregnancies 30%

Conclusion: IUI is not superior to timed intercourse as an adjuvant therapy in the treatment of HH female patients.

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P-08 Poster What is the relationship between male addiction and pregnancy rate of his wife after laparoscopic ovarian diathermy in PCOS women?

Introduction: addiction is a major public health hazard which may cause different disease such as fertility disorders through numerous mechanisms. Addiction like Smoking decreases sperm quality and fertilizing capacity. It prevents growth of ovarian follicles and decreases female fertility. The objective of this research was to determine the effect of male addiction on the results of female fertility with polycystic ovarian syndrome (PCOS) that was operated with laparoscopic ovarian diathermy (LOD).

Material and methods: this prospective clinical research, study included 177 infertile couples with evidence of Pcos in women, during 4 years. After evaluation of semen analysis, and ruled out Other causes of hyperandrogenemia, medical therapy was prescribed for 3-6 months, if no response, LOD was end goal to reduce the amount of androgen-producing tissue. Her husbands were evaluated by questionnaires: semen analysis, age, job, addiction, surgery, drugs use. The results of questionnaires were reported: normal semen 87.5%, mean age 33 years, previous surgery 7.9%, job 6.6% contact with chemical and thermal materials, drug use 11.2%, and addiction 22.4%. The prevalence kind of addiction was: cigarette smokers 17.1%, opium 2.6%, nargileh 1.97%, and the other 3/.%. None of women were addiction. The data were analyzed with SPSS software.

Results: No accessible 44 patients, therefore from 133 pcos ladies, 76 conception(55.6%), 49.7% term pregnancy, 5.9% abortion, due to LOD operation. Ovaries were ovulated: Spontaneous ovulation in 75%, with clomiphen citrate 23%, with gonadotropin 2%. But why were pregnancy rates decreased in compare to textbook after following up 24 months (PR 82% in Novak's textbook and etc). Fertility rate is decreased in male and female smokers, even the exposure of smoking. So, the prominent factor in this study is use of the addiction of material that can decrease semen quality and fertility rate.

Conclusion: it must be considered the option of male addiction, in addition to female factors in treatment of infertile couples. Therefore, it should be suggested to keep out of the way of ddiction.

Key words: addiction, infertility, PCOS, semen quality.

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P-09 Poster How can you decrease the major and minor complications related to gynecologic laparoscopic surgery?

Introduction: despite the growth of laparoscopic surgery, its complications must not be underestimated. The aim of this study is analysis of characteristic and rate of complications in operative and diagnostic laparoscopic surgery.

Material and Method: This prospective research during 5 years in Jahrom's Pymanieh Hospital on 280 patients were performed. Age, from 16 to 43 years, the surgical procedures include: adhesiolysis , Ovarian surgery, destruction of endometriotic lesions, four major complications were occurred: 1- extraperitoneal insufflation of carbon dioxide that induced chest and neck emphysematous pattern, so, stopped procedure temporary(0.35 %). 2- Cardiac arrest, during gas intraperitoneal insufflation was occurred, cardiac resceitation was performed immediately(0.35%).

Two last cases were vesical traumas(0.71%): first; during Intraabdominal trocar insertion, second; interesting and unexpected case, vesical trauma, despite fixed foley catheter was occurred, because after voiding, about 20cc of urine, was stopped urine void, so, bladder was very distended ,like a very large ovarian cyst(10×15cm) and because of educational environment, perforation was occurred due to vesical manipulation, so two last cases, by injection of methylen blue, impression was defined, then vesical repair through laparotomic procedure performed. *The minor complications* include: wound infection and hematoma were occurred in 3 (1. 07%) obese patients, vulvar edema in 1(0.35%), subcutaneous emphysema in 1(0.35%), mild to moderate peritoneal irritation from retained intra-abdominal gas in 20(7.1%) patients.

Result: overall, major complication rate was 1.4% (4 patient), but none of them was needed to blood transfusion, and all of them discharged with good general conditions, from hospital. Minor complication rate was 9.6%(27 patients), that outpatient were managed.

Conclusion: despite surgical laparoscopic complications, special advantages, comparable to laparotomy, significantly decreased manipulation and adhesion, short hospital stay and convalescence time tothe patient, but continuous effective training is imperative to minimize, the risk of abdominal and pelvic injuries, in particular, the urinary tract. critical documentation of complications of laparoscopy in a central unite in every country, is important for the development of this surgical technique and decreased complications.

Key words: laparoscopy, surgical complication, continuous effective training.

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P-10 Poster **The effect of melatonin treatment on neonate mouse testis tissue after vitrification, thawing and heterotopic transplantation (S.C. site) into castrated recipient mice was studied.**

Introduction: The effect of melatonin treatment on neonate mouse testis tissue after vitrification, thawing and heterotopic transplantation (S.C. site) into castrated recipient mice was studied.

Materials and methods: Vitrified testes from neonate inbred mice, candidates for transplantation to treated or untreated groups, were thawed under standard conditions with or without the addition of 100 µM melatonin, respectively. Following transplantation, melatonin (20mg/kg/day) or saline solution was applied as gavage to the treated and the non- treated groups respectively. Melatonin, gonadothropins and steroids concentrations, together with spermatogonia survival and spermatogenesis were followed.

Results: Histological and immunohistochemical studies showed that melatonin could improve the spermatogonia quality in the testis graft. Plasma LH and FSH levels were higher in the castrated host than intact mice at before grafting. However, the melatonin administration reduced these high levels into nearly similar concentrations to those in intact mice. The correlation coefficients between gonadotropins and melatonin concentrations during the days of transplantation of the testis grafts were significantly different from zero. Nevertheless, testosterone secretions were not adversely affected by melatonin treatment. But the correlation coefficients were significantly different from zero.

Conclusions: These results suggest that melatonin could be beneficial as a protection from graft testis tissue as well as have positive effects on the deficient the activity of hypothalamic –pituitary testis axis drive of the recipient.

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P-11 Poster **Salpingoscopic evaluation of Fallopian tubes in unexplained infertility**

Objective: To evaluate the role of salpingosopy as a diagnostic tool in unexplained infertility in couples with normal standard investigations including semen analysis, tests of ovulation and tubal patency using HSG.

Patients and method: A prospective study of 109 patients diagnosed to have unexplained infertility (1ry or 2ry) referred from infertility clinic at Suzam Mubarak University hospital, Minia University, Egypt. All patients were subjected to diagnostic laparoscopy during which salpingoscopic evaluation of both fallopian tubes was done.

Setting: Endoscopy unit of Suzan Mubarak University Hospital, Minia University, Minia, Egypt

Intervention: Laparoscopy and salpingoscopy.

Main outcome measures: discrepancy between external appearances of the tubes and their endosalpingeal pattern. Salpingoscopic findings were classified according to Brosens and Puttemans (2000).

Results: 73 patients had normal tubes (grade I and II) 13 patients had one tube only diseased (8 patients had right tube diagnosed to be more than grade II while 5 patients had only left tube affected). 23 patients had both tubes diseased. None of the patients were diagnosed to have markedly damaged tubes by HSG and MBT .However, salpingoscopy diagnosed 28.4 %and 25.7 %of patients with markedly damaged right and left tubes respectively. There was marked discrepancy between external appearances of the tubes and their endosalpingeal pattern.

Conclusions: Salpingoscopic evaluation of both fallopian tubes could be of great value in infertility work up especially in cases of unexplained infertility as patent tubes by HSG or during laparoscopy doesn't necessarily mean healthy and functioning ones**.**

Key Words: Salpingoscopy; Unexplained infertility; Fallopian tube.

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P-12 Poster Pregnancy outcome in the female after consumption of herbal drug "NOFODA" by the male

Introduction: Infertility is a common problem affecting 12-15% of the population. Access to infertility treatment is an important issue, especially through beneficial and inexpensive methods. This study aims to determine the pregnancy outcome and sperm parameters quality after treatment with a herbal formula "NOFODA" comprising of Orchis mascula, Tribulus terrestris, Phoenix dactylifera pollen, Allium ampeloprasum, Ficus carica, lepidium sativus and Amygdalus communis.

Materials & Methods: 32 infertile men received 500 gr herbal drug "NOFODA" (case) and 30 men just placebo (control) 3 times a week, for 3 months. There were two secondary infertile men in case and one in control groups, and others with primary infertility. Sperm parameters such as count, motility and morphology were evaluated by WHO criteria. The data were analyzed using t-test by SPSS 16.0.The pregnancy rates in their females were recorded as well.

Results: The mean age of infertile men was 30.40±5.21. Approximately 20% of couples in case group conceived after consumption of "NOFODA" by the male. However, no pregnancy in control group was reported. In case group after treatment with "NOFODA", immotile sperm decreased from 49.03±17.96% to 39.70±21.01% and total motility increased from 50.59±25.12% to 61.22±39.27% ($p<0.001$). Also, sperm count was increased from $42.91\pm29.95\times10^6$ to $51.o5\pm32.86\times10^6$ after herbal treatment. However, no significant changes were detected in sperm parameters in control.

Conclusion: In this prospective study, sperm quality and pregnancy outcome were improved after consumption of herbal formula "NOFODA" by infertile male. Administration of this natural drug is recommended as a supplement for therapy of infertile couples.

Key words: pregnancy, infertile men, sperm parameters, herbal drug NOFODA,

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P -13 Poster Hydrosalpinx : Hysterosalpingographic images of distal tubal obstruction

A hydrosalpinx is a blockage of the distal portion of fallopian tube which is filled with fluid. Hydrosalpinx is the most common result of a previous chronic salpingitis. Commonly, post-inflammatory fibrosis and agglutination of the fimberia produce a chronic hydrosalpinx. The main presentation of a hydrosalpinx is infertility. Hydrosalpinx is diagnosed by several ways including ultrasound, surgery such as laparoscopy, or with a specialized x-ray test called a hysterosalpingogram. On HSG, a hydrosalpinx appears as an elongated and tortuous dilatation of the ampullary segment of the fallopian tube. Hydrosalpinx varies from mild to severe and is accompanied by varying degrees of tubal obstruction and paratubal adhesions. It is usually bilateral, but unilateral hydrosalpinx with free patency of the contrast-lateral tube is not uncommon. Here we present hysterosalpingographic classification of distal tubal occlusion (from phymotic ostium with preserved tubal patency to thick-walled hydrosalpinx and absence of ampullary folds).

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P-14 Poster Sonohysterography (Application and Technique)

sonohysterography is a new technique developed to better investigation of the uterine cavity. This method is a safe, simple, effective and outpatient procedure, and performed in the ultrasound room without using sedation or analgesia.

Hystersonography, also nominated as sonohysterography or saline infusion sonography, uses an infusion of sterile saline through a soft plastic catheter placed in the cervix in conjunction with transvaginal ultrasound. The saline infusion distends the uterine cavity and provides an excellent contrast to the lining, giving improved visualization of uterine and endometrial pathology. It can allow the examiner to determine whether an abnormality is intra cavitary, endometrial, or sub

mucosal. This technique is most useful for evaluating women with fertility problems, post menopausal bleeding, or an abnormal endometrial interface as seen at baseline sonography.
Three-dimensional ultrasound when performed with saline infusion can yield additional useful information about the uterus, the endometrial cavity, and lesions that may occur within. It provides detailed information of the internal and external contours of the uterus, obviating the need to perform surgery for diagnosis alone. There is better depiction of endometrial lesion location. More recently, a 3D sonographic inversion rendering was introduced that converts anechoic voxels to echogenic and displayed in three dimensions. With this technique, a digital "cast" of the endometrial cavity may be made and further studied.

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P–15 Poster Endoscopic Myomectomy and Infertility

Introduction: Do Women with Myomas Suffer from Decreased Fertility ?
Does Endoscopic Myomectomy Improve Pregnancy Rate (PR%) ?
Statistic Table Shows Female Laparoscopic Surgeries at AL AHLI Specialty Hospital Since Opening to 30/9/2009, (398 Uteric Fibromas in total)
Talking about the Hospital where the Study took place: Al-Ahly Speciality Hospital, Damascus-Syria, Accredited by R.Wolf Company (Germany) and the Pan-Arab Association of Gynecological Laparoscopic Surgery.
Our Study:
- Taking 146 women diagnosed with fibromas (56Pnt. with distorted uterine cavity, 90Pnt. without distortion and a Control Group without Fibromas of 82 women.. a total of 228 women)
- Comparing the Pregnancy Rates (PR%) during 9months while being treated by medical means (without any surgical interference).
- Then the PR% after Endoscopic Myomectomy for the remaining infertile women. (118Pnt.)
Discussing The Results: Pregnancy Rate (PR%) and IVF: enforcing our study by comparing our results to all the seven other Universal studies that discussed the impact of myomectomy on fertility before/after IVF.
Conclusion:
- There is a direct link between the myoma and the fertility.
- We can improve fertility by removing the Uterine myoma, especially in myomas >8cm in size and myomas with distortion of uterine cavity.

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P-16 Poster The temperance physical constitution interference at cure of barrenness

Introduction: The Canon of Avicenna has been counted one of the medical reference books, that it has been a special position in university centers. Mediation and reflection at principle of this book affect on science progress in medical communities.

Materials and Methods: This study is accomplished liberality and descriptive way. For the knowing the temperance physical constitution interference at foetus health, it is necessary that first explained the physical constitution, then described philosophical life creation and the role of the physical constitution at life.

Results: In the first step, with using the Canon, the temperance parent physical constitution interference at forming safe sperm has been explained. Then the temperance mother physical constitution interference at forming healthy foetus and so the temperance foetus physical constitution interference at his healthy has been described with the evidences of the Canon.

Conclusion: The attention to creation and keeping the physical constitution can help medical communities on the securing mothers and children healthy, the true ordering different medicine at pregnancy-time mothers etc. So the distribution factor on the physical constitution, for example the stress, the anguish, the unrest and even mother feeding, before and after childbirth, is affect on the fertility preservation.

Keywords: the physical constitution, human life, foetus, Avicenna.

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P- 17 Poster Cure of barrenness in challenge of God's justice and wisdom.

Introduction: Application of modern technology to cure barrenness has arisen challenges in various aspects some of which are ethical, legal and ideological. One of the ideological challenges, inserted in the above topic, has been discussed through this essay.

Materials and methods: The research is library-oriented and analytic. When subjects are classified, answers to the problems-arisen in respect of barrenness cure regarding God's Justice and Wisdom-have been provided.

Results: The cause-effect system ruling the universe helps a lot to determine God's; the Almighty; Justice and Wisdom in creation. There for, the creation of the barren person, in the framework of that system, doesn't conflict with His Justice and Wisdom. Of course, based on the

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penal justice, God will compensate these deficiencies by either giving rewards or mitigating the punishment. So, unveiling the creation mysteries-and the carement of some diseases or the ability to do some affairs such as the selection of foetus gender doesn't derange the best Divine system ruling the universe. Besides, these Facts prove the existence of such a system because if the relations weren't established in the system, how could we access to these facts.

Conclusions: 1. The opinion of some western thinkers claiming in consistency of the barren creation with God's wisdom and the certitude of the creation system is false in the perospect of Islamic philosophy. The deficiency seen in the ill person has its root in the aptitude of the acceptor and the maker substances, not in the nominative case.
2. By understanding the best system and the accurate determining of the ordination ruling it, we conclude that Foetus gender selection and modern barrenness curement can't be judged as the interference in God's creation and the conflict with God's Justice; rather the stability of the best system is proved through the occurance of such affairs.

Key words: God's wisdom, justice, gender selection, barrenness curement.

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P- 18 Poster Is Foetus a single sole?

Introduction:

One of the necessary tasks in university community is the explanation of principle issues in medical ethics. One of the questions, Related to Foetus and barrenness cure, is about the criteria of being a human and Foetus as a single sole. The Foetus undergoes stages such as Zigoot, morulla, per-foeftus, and Foetus. So it is vital to determine in which of these stages, it can be considered a man of single sole and the legal and jurisprudence human laws will be attributed to it? And before that stage, is it imperative to respect the Foetus and protect it?
Clarification of this subject, besides the determination of a verdict for abortion and its blood money, will be helpful in the discussion of Foetus selection and sex selection.

Materials and method:

This research is analytic and library-oriented. At first we have discussed the criteria of a single sole from western's points of view. Then we explained the same criteria in Islamic Jurisprudent and its principles in philosophy.

Results:

Western thinkers-to consider Foetus a single sole-have suggested various criteria such Fecundation, placenta, the brain waves reflection, Foetus durability, and its birth. So, great

diversities in their criteria tell us they don't have any acceptable criteria to determine what human really is.
Rather, Transcendent philosophy, besides clarifying necessary principles to identify human being, has determined the stages that a being passes to become a man. He undergoes various stages such as: mineral, plant life, animal life, till involves into an actual man. This viewpoint to Royan and Foetus, besides the forbidden abortion in any stages of Foetus life, suggests different crime value of this forbidden act in the various stages. This fact doesn't view in western thinkers works.
Jurisprudents have determined the verdicts of abortion in the various stages that show coordination with the principles in Transcendent philosophy.

Conclusions: To respect Foetus and to protect unnecessary abortion on a hand, and its lack of human characteristics, on the hand, has led to diversal opinions, among western thinkers, of what a single sole is. Islam has not faced this problem since its perfect Jurisprudence has primarily introduced a very exact criterion and Transcendent philosophy is clarifying necessary principles to it.
Jurisprudents don't need to determine the criteria of "Foetus as a single sole" on philosophy. It is responsive by itself. However, its answer is in the agreement with that of Mulla Sadra's philosophy; of course, each follows its own method. Rather, western thinkers, to find the criteria, if they have clung to philosophy, their philosophy are not capable of providing accurate criteria.

Key words: substantial motion, Foetus, soul, crime.

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P-19 Poster Assessment of quality control in ART lab using Human sperm motility assay (HuSMA)

Introduction: The quality control (QC) system is used to make sure that disposable items that are used for culture of gametes and embryos are toxic-free. To maintain a high standard in our ART laboratory, all disposable items in ART laboratory were tested by HuSMA. HuSMA was used as a measure of QC in the ART lab.
Materials and methods: 18 items that are commonly used in IVF lab were tested by HuSMA. Items included gloves, syringes, culture dishes, pipettes, tips, semen collection dish. HuSMA was conducted at 10, 30 minutes and 1,2,4,24 hours of incubation at room temperature. Sperm motility index (SMI) was calculated by dividing the percentage of progressive motile sperm of the test by the control at the specific time. SMI value < 0.85 was used to indicate sperm toxicity. Each test was repeated 3 times only.
Results: QC by HuSMA identified that 3 of the assessed items, embryo transfer (ET) glove A and B, and puncture glove A were toxic. ET glove A (SMI=0.0) and puncture glove A (SMI=0.0) were

toxic after 10 minutes, but ET glove B (SMI=0.63) after 24 hours were shown to be toxic (46% progressive motile sperm compared with control=68%). Also, 2 items of puncture plate A (SMI=0.42) and semen collection dish (SMI=0.67), were border line after 24 hours, means the results in 4 repeats were different after 24 hours (2 times toxic and 2 times nontoxic).

Conclusion: This study showed that some items which are routinely used in ART lab may be toxic and their use should be discontinued as part of the QC program. To increase the efficiency of the HuSMA, this assay should be done more than once for each item.

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P-20 Poster Ovarian stimulation cause an increase in the incidence of apoptosis in mouse blastocysts

Introduction: Apoptosis or programmed cell death is an essential physiological process in the normal development of embryos. The aim of this study was to investigate the expression of apoptosis related genes (Bax, Bcl-2, Fas, Fas Ligand and P53) and progesterone receptor in blastocyst derived from hyperstimulated and progesterone treated mice.

Methods and Materials: In this study the uterine horns of pregnant mice in control and ovarian stimulated groups with or without progesterone administration were isolated on day 5 of pregnancy to collect the preimplantation blastocysts. Then these blastocysts were used for TUNEL assay and analysis of apoptosis related genes with Real Time PCR.

Results: After TUNEL assay the most apoptotic cells were seen in the hyperstimulated group whereas the fewest apoptotic cells were seen in the progesterone treated group. The results show that highest level of proapoptotic genes expression occured in hyperstimulated group and the highest level of antiapoptotic genes expression was seen in the progesterone treated group.

Conclusion: These results demonstrated that apoptotic cell death increase under the effect of ovarian stimulation and progesterone seems that decreases the rate of apoptosis in blastocysts however with the expression of progesterone receptor was increased in progesterone treated group.

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P-21 Poster **Correlation between intra-uterine insemination outcome and Kruger strict criteria using two staining methods to detect the sperm morphology of infertile men**

Objective: The objective of this study is to achieve two major goals that is:1- the assessment of sperm morphology by applying Kruger strict criteria , using two different biological stains, named commercially Testsimplets (pre-stained slides) , and Sperm-O-Scan stain 2- to have a cut off value for morphologically normal sperm that resulting into a successful intrauterine insemination outcome.

Materials and Methods: Fifty Five unselected couples attending the Institute of Embryo Researches and Infertility treatment were included in this prospective study from December 2007 till August 2008 .The mean age of male partner was 31.7±1.87years with an average duration of 6.25±1.65years of infertility. Both, Male partner and female spouse were subjected to full clinical assessment at the Infertility Clinic, which was performed by the infertility consultant. The women were prepared for Intra uterine insemination(IUI) . All the males were under went semen analysis as recommended by WHO(2010).Then, *in vitro* sperm activation using layering swim-up technique was done for them. Assessments of the morphologically normal sperm of the samples were done by using both, High power field and Kruger strict criteria where the two stains used(Testsimplets and Sperm-O-Scan stain). Correlation of the positive IUI results and morphological normal sperm by Kruger strict criteria was recorded denoting the cut off value for successful results.

Results: The mean of morphologically normal sperm applying Kruger strict criteria using Sperm O scan stain before *in vitro* sperm activation was 16.10% and after activation was 37.85% and by using Testsimplet stain before *in vitro* sperm activation was 15.14% and after activation was 37.09% .Whereas. there was no significant ($P>0.05$) differences between the results of morphologically normal sperm of the two stains. The result of IUI was 11 positive pregnancies out of the 55 cases. The mean of morphologically normal sperm using Kruger strict criteria for these positive cases was 11.58% by Sperm O scan stain and was 12.84% when using Testsimplet stain.

Conclusions: The cut off value of morphologically normal sperm by applying Kruger strict criteria and using two different biological stains for a successful IUI program was 11.58% by SOS stain and 12.84% by TS pre-stained slides. The study found no statistical differences between the two stains, Testsimplet found to be easier, simpler and less time consuming technically than SOS stain.

Key Words :IUI, Kruger strict criteria, Testsimplets (pre-stained slides) , and Sperm-O-Scan stain

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P-22 Poster **The effect of morphine administration on stracture and ultrastructure of uterus in pregnant mice**

Background: Maternally administered opiates such as morphine represent a serious human health problem. Opioid abuse may have unfavorable effects on reproductive organs.

Objective: The present study evaluates on the effects of morphine on stracture and ultrastructure of uterus in BALB/c mice.

Materials and methods: Forty BALB/c pregnant mice were divided into four groups: two experimental groups (I and II), sham and control groups. 5 mg/kg and 10 mg/kg morphine were injected via intra-peritoneal (IP) route, daily (during 15 days) in group I and II animals, respectively. The same volume of saline was administrated in sham group. Control group did not receive any treatment. At 15th day of gestation (E15), the pregnant mice were sacrificed and their uteri were removed. Following histochemical staining, the samples were studied using light and transmission electron microcopies.

Results: In experimental groups, some apoptic sites with polymorphic inflammatory infiltration and congestion of vessels were observed. The rate of polymorphic inflammatory infiltration and apoptic sites were 60% and 70% in experimental groups I&II, respectively. Also, the rate of vessel congestion in the experimental groups (I and II) was 70%. The ultrastructural study showed the nuclear membranes of endometrial epithelial cell was torn, convoluted, and a distance between nuclei and irregular chromatin was observed in both experimental groups. There were no signs of structural abnormalities in other groups.

Conclusion: Morphine administration causes histology and cytology lesions that may be responsible for endometrial alterations in laboratory animals.

***Key words**: Mice, Morphine, Endometrium, Uterus, Stracture, Ultrastructure*

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P-23 Poster **Psycho therapeutic approach to ART:**

The elaborative guide to maintaining mental health and treating stress –related ART approach .

Introduction: In attention to the emotional distress as a consequence of infertility and its treatment has led worldwide to the recommendation to provide psychosocial interventions for infertile couples.

A wide range of psychosocial interventions for infertile couples has been developed. they vary from provision of information , emotion-and problem focused intervention, supportive group interventions, to psychological and sexual conselling, couple therapy, cognitive - behavioral therapy and mind- body therapy.In this survey , the theraputuc foundations , treatment goals and practical implications of the psycho therapeutic approach will be outline.

Method:This research review many article about role of psychological therapy that can be help to infertilile couple in ART approach.

Result: Many research showed that cognitive behavioral therapy optimize the chance of conception, improve sexual functioning and satisfaction, reduce thoughts of helplessness and, improve marital communication skills.

The group offers multiple opportunities for experiencing communility with other couples. The couples may benefit from learning from others'

Experiences in coping with infertility and marital group format offers particularity good opertunities for identification and modeling and exchanging of experiences.

The body–mind programme are: the use of art therapy techniques, the use of body-oriented techniques, and the use of a marital group format.

This approach gives containment to feelings and emotions , brings greater intimacy in the couple and may help to increase the skills of the couples in dealing with the infertility- or treatment-related bodily stresses and discomfort.

Overall psychosocial intervention improve communication within the couple and with the physicians; achieve a general reduction of stress in both partners; be more conscious of the treatments consequences and more actively involved in decision taking during the different treatment steps; restore the body image, strengthen the ability to cope with childlessness and fertility treatment; help the couples to realize that they have a life beyond infertility and medical procedures and create healthier stories about themselves their relationship and their lives, instead of the dominant wishing for a child story.

Conclusion: Many study confirms that psycho –suportive approach have strong evidence for offering stress reduction , control depression , anxiety and emotional feeling process as a aggresion , guilt , hoplessness that impact to effectivity of therapy in infertile couple. We suggest this approach inside other medical treatment.

Key word:infertile couple-psychosocial approach-cognitive behavioral therapy.-infertility treatment.

By :leili mosalanejad:faculty member of jahrom university of medical science

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P- 24 Poster Development of Zona-Free Egg Following ICSI

Introduction: Often times the Laboratory IVF Practitioner is confronted with zona-free eggs (ZFEs). When a patient has many eggs and has sufficient zona intact eggs (ZIEs) there is no concern but should the patient have very few eggs the presence of one or more ZFE constitute a loss to the patient and the treatment cycle. The question is whether it is possible to harness and fertilize such eggs by ICSI? ZFE are very fragile and may succumb to manipulation. Often the ZFE may be sucked into the holding pipette and damaged if the operator is not careful. It is therefore necessary to devise a technique that will not harm the ZFE during ICSI. Here we report a case of ZFE that was fertilized by a gentle technique of ICSI insemination.

Subject and methods: 17 eggs were retrieved. After stripping-off the corona-cumulus cells, 14 were ZIEs, 1 ZFE and 2 were morphologically abnormal. The 15 ZIEs were inseminated by standard ICSI procedure while the ZFE was inseminated by a modified ICSI method. Briefly the

ZFE is held by the holding pipette by minimal suction pressure. The injection pipette containing the immobilized sperm is injected into the ZFE to a length of only about 1/12th of its diameter. The tip of the injection pipette penetrates to a depth just barely under the oolemma. The oolemma is compromised by gentle suction with the injection pipette and the immobilized sperm expelled into the cytoplasm.

Results: 10 of 14 ZIEs and the single ZFE were noted to be fertilized at about 21hrs post-ICSI. The zygotes derived from ZIEs were cultured in groups of 5 under ultra microdrop cultures as previously described by us (Ali, Clin. Embryologist. 7(2):1,17-23). Likewise the ZFE-derived zygote was cultured singly. On day 2 three (2 small and 1 large) non-fragmented blastomere, on day 3 the ZFE-derived embryo developed to 7 blastomeres with no fragments. On day 5 it had blastulated and on days 6 to 7 expanded (Figs 1-5 respectively). The development appears normal but the odd number of blastomeres seen earlier could be suggestive of an aberration but this could not be confirmed.

Discussion and conclusion: We, like many others before us, have described the successful fertilization of the ZFE. The question remains whether such embryos are safe? Is the genetic constitution of the egg and the resultant embryo preserved intact following ICSI? In our method we have avoided deep penetration normally utilized for ICSI of ZIEs, therefore it is likely the spindles of the ZFE were not damaged but this is merely speculative. In compliance with regulations we have not been able to investigate the genetic constitution of the ZFE-derived blastocyst by non-reversible invasive techniques that will cause the demise of the embryo. Although there are reports on ZFE-derived embryos we need a larger data set on the safety of using ZFE-derived embryos before such embryos can be utilized for therapeutic purposes.

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P-25 Poster Effect of forced swimming stress on in-vivo fertilization capacity of rat and subsequent offspring quality represent for you.

Aims: This study aimed to determine the effect of 50 days of forced swimming stress on fertilization capacity of rat and subsequent offspring quality. **Setting and Design:** The prospective study designed *in vivo*. **Materials and Methods:** Total 90 Wistar rats including 30 adult male (3 months of age, weighing 210 ± 10.6 g) and 60 female rats (3 months of age, weighing 230 ± 12.2 g) were engaged in this study. Male rats were randomly divided in two equal groups (n=15): Control and experimental groups. Animals of the experimental group were submitted to forced swimming stress for 3 min in water at 32^{o}C daily for 50 days. Then all adult male rats were mated with normal females (2 per each male) for 7 days. Female rats were sacrificed and autopsy was performed on day 20 of pregnancy when uterus and ovaries were examined for the number of corpora lutea, dead and live fetuses, embryo resorption, implantation sites, and fetus weight. **Conclusion:** Results of this study have important implications for families attempting pregnancy.

Stress pursuant to life events may have a negative impact on in vivo fertilization capacity of male rats and subsequent offspring quality.

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P- 26 Poster Intra Cytoplasmic Sperm Injection (ICSI) in patients with ovarian endometrioma

Introduction: Our objective was to evaluate the effect of ovarian endometrioma on ovarian stimulation outcomes in Intra Cytoplasmic Sperm Injection (ICSI).

Material &Methods: In this prospective cohort study, we followed 103 patients underwent ICSI procedures at royan Institute during 10 month. The study group consisted of 46 women who had endometrioma with size more than 1 cm. The control group included 57 patients with male-factor infertility. The standard long protocol with gonadotropin-releasing hormone agonist (GnRH-a) and recombinant follicle stimulating hormone (rFSH) was used for ovarian stimulation. Two groups were compared for number of oocytes retrieved, oocytes grades, embryo quantity and quality. We also performed inter group comparison in patients with unilateral endometrioma.

Results: There were no significant differences about basal characteristics between endometrioma and control groups. Our results also showed similar endometrial thickness, follicle numbers, and good embryo grades (grade A or B) in compared groups. Two groups had similar pregnancy rate.

However, patients with endometrioma had higher gonadotropin consumption compared with control group. The mean number of retrieved oocytes in patients with endometrioma was 6.6 ± 3.74 compared with control group 10.4 ± 5.25 ($P<0.001$). The numbers of metaphase II oocytes were also significantly lower in patients with endometrioma (5± 3.21 VS. 8.2± 5.4).

In patients with unilateral endometrioma, we could not find any significant differences about main outcome measures between normal ovary and involved ovary with endometrioma.

Conclusion: It seems that ovarian endometrioma affects ovarian response in stimulation phase by decreasing the numbers of retrieved oocytes but not affecting quantity and quality of embryos or pregnancy rate.

Keywords: ICSI, Ovarian endometrioma, Number of oocytes, Embryo quality, cycle outcome

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P-27 Poster GnRH antagonist Vs Agonist in Iranian normoresponders undergoing IVF: A Randomized Clinical Trail

Objective: Using GnRH analogues in IVF had different results in different subgroups of patients. In this study, the outcomes GnRH agonist and GnRH antagonist in ART cycles are compared in normo-responder patients.

Material & Methods: In this Randomized clinical trial, 300 normo-responders undergoing IVF from Jan 2008 Jan 2010 in two infertility centers were randomly divided to GnRh agonist (n=150) and GnRh antagonist (n=150) groups.
The main outcome measurements were chemical, clinical and ongoing pregnancy rates between two groups.

Results: Chemical pregnancy rate was 53 (35.3%) in agonist and 59 (39.3%) in antagonist group. Clinical pregnancy rate was 53(35.3%) in agonist and 51 (34%) in antagonist group.
Ongoing pregnancy rate was 45 (31.3%) in agonist and 44 (29.3%) in antagonist group. There was no significant difference between 2 groups in pregnancy rates.
The mean duration of stimulation was 9.6±1.6 and 8.2±1.6 days in agonist and antagonist groups respectively (P value= 0.001).
The mean number of gonadotrophin ampoules in agonist group was 24.2±7.3 and in antagonist group was 24.2±6.5 (P>0.05).
The mean number of MII oocyte retrieved in agonist and antagonist groups were 7.7±4.0 and 6.9±4.3 respectively (P=0.03).
The endometrial thickness in the day of HCG administration was 10.3±1.3 mm in the agonist and 9.3±1.3 mm in the antagonist group (P=0.00).
There was no significant difference between two groups in number of follicles, occytes, total emberyoes and good quality emberyo, OHSS incidence, and abortion rate.

Conclusion: In this study antagonist protocol was shown to be an easy, safe and friendly protocol and having similar outcomes with standard agonist protocol but shorter period of stimulation. It seems that antagonist protocol can be used as first choice in Iranian normoresponder patients.

Keywords: IVF, GnRH antagonist, GnRH agonist.

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P-28 Poster Single vs. Multiple Embryos Transfer

To decide the optimal number of embryos transferred in women undergoing fresh embryo transfer cycles, there are guidelines regarding the number of embryos to be transferred during a fresh IVF cycle, which are used to reduce multiple pregnancy rates. Because of the reported lower success rates in single embryo transfer, more embryos are often transferred in fresh cycles. This practice, however, results in a significant increase multiple pregnancy rates which are associated with maternal and perinatal morbidity and mortality. This study was conducted to compare the outcomes of single versus multiple embryos transfer.

Method: This is a retrospective, observational study composed of 2 groups, Group 1: single embryo transfer and Group 2: multiple embryos transfer, were enrolled in this study from October 2007 to October 2009, in C-PLAS Hospital Sana'a, Yemen.

Results: The ongoing Clinical Pregnancy Rate after Single Embryo Transfer was not significantly lower as compared with Multiple Embryos Transfer (31.42 versus 42.22 %). Delivery rate was significantly lower in the Multiple Embryos Transfer group (25.71 %)versus (39.2%) in the Single Embryo Transfer group respectively, P =0.003), Multiple pregnancies were significantly higher in the Multiple Embryos Transfer group when compared with the Single Embryo Transfer group (6.25% versus 0 %) respectively, (P<0.001)

Conclusion: Single embryo transfer results in satisfactory delivery rates and a dramatic decrease in the Multiple Birth Rates.

Keywords: single embryo transfer; multiple births; IVF; birth rate

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P-29 Poster Efficacy of Progestogens Supplementation in First Trimester Threatened Miscarriages

Objective: to determine whether progestogenic therapy (Dydrogesterone) will improve pregnancy outcome in patients with first trimester threatened miscarriage.

Design: Prospective controlled study

Setting: Department of obstetrics & gynaecology at Misurata Teaching Hospital.

Subjects and methods: 300 pregnant women who had been into the gynaecology and obstetric department with vaginal bleeding before 14 weeks gestation over a period of 12 months (October 2008-September 2009), and diagnosed as having threatened miscarriage, were divided equally into treatment and control groups. Inclusive criteria: single pregnancies with presence of normal yolk sac and fetal heart, mild or moderate vaginal bleeding, absence of systemic illness, and without history of conception material loss. Patients of recurrent miscarriages, empty sacs, uterine anomalies or having hypertension, diabetes or liver diseases were excluded. Severity of symptoms

and ultrasound findings were also included. Treatment group patients received 40 mg Dydrogesterone stat, followed by 10 mg 3 times a day orally until bleeding stopped, in addition to multivitamin supplementation (Pregnacare) and bed rest. Controls managed conservatively with (Pregnacare) and bed rest only. Treatment considered successful when pregnancy continued beyond 20 weeks gestation. The data were analysed using student's t test or Chi squared test, $P< 0.05$ was considered to be statistically significant.

Results: The continuing pregnancy success rate was significantly ($P< 0.05$) higher in patients treated with Dydrogesterone (89.3%) compared to women managed conservatively (71.8%).

Conclusion: Oral supplementation of progestogens (Dydrogesterone) in first trimester threatened miscarriages will reduce the incidence of pregnancy loss and improve the outcome.

Key Words: Dydrogesterone, Threatened miscarriage, Pregnancy

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P-30 Poster Flexible, Multi-dose GnRH Antagonist versus Long GnRH Agonist Protocol in Poor Responders: A Randomized Controlled Trial

Introduction: To compare a flexible, multi-dose GnRH antagonist protocol with a long GnRH agonist protocol in poor responders.

Materials and Methods: A randomized clinical trial of 70 poor responder patients (35 patients in GnRH antagonist protocol and 35 patients in long GnRH agonist protocol) was performed at Royan Institute, Tehran, Iran. Both groups were given a fixed dose of human menopausal gonadotropin (HMG) for stimulation and oral contraceptive pre-treatment. Data analyzed by student's group t-test or Chi square test.

Results: Stimulation duration, total gonadotrophins consumption, mean numbers of oocytes retrieved, formed embryos, cycle cancellation rate, and clinical pregnancy rate were similar between both groups. Although the miscarriage rate was higher in the agonist protocol group, the rate of miscarriage was not statistically significant between both groups.

Conclusion: A flexible, multi-dose GnRH antagonist protocol appears as effective as the long GnRH agonist protocol in poor responders. More (larger) randomized controlled trials for better statistical analysis are recommended.

Keywords: GnRH Agonist, GnRH Antagonist, Poor Ovarian Function

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P-31 Poster Abortion for keeping mother alive

Abortion is one of the topics that is discussed from different points of view such as Islamic Law, Jurisprudence, and criminal law .If the fetus is at the risk stage and remain in the uterus threatens mother's life, according to Islamic law and Jurisprudence, it should be removed from the uterus and taken care of in certain devices .In this case ,we deal with the phenomena of fetus transfer rather than abortion.

On the other hand, if the fetus is still dependent on the mother and remains at an embryonic stage of development whether it has life or not, if it threatens the mother's life and one of them prefers to other, one of them should be selected. The Jurists believe that the one who is less likely to live on should be given the priority for the death choice, and if they have an equal chance to live on, one of them should be sacrificed on the basis of reasonable decision .Therefore, under this circumstance if the doctor or the mother performs abortion, he/she has not acted against Islamic law. Of course if the abortion is performed, the due compensation should be paid if it is demanded by the family. But the present penal laws in our country, and based on the article seventeen of medical disciplinary passed in 1968 which came into effect after the Guardian Council had made a change in it , allow abortion only when the mother is in danger and the fetus is inanimate. It holds true while the dynamic principles derived from Shiah Fegh have entirely made clear what measures both the mother and the doctor should take if the fetus is animal .It's hoped that law makers in our country will revise the laws related to abortion,put an end to the confusion of those involved ,and therefore ,prevent some from types of unsafe and illegal methods .

Key words: Fetus, Abortion, starting point of embryonic life, Necessity, soul, spirit

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P- 32 Poster Reducing OHSS Risk: New Trends

Introduction:

Ovarian hyperstimulation Syndrom (OHSS) is a serious iatrogenic complication of controlled ovarian hyperstimulation (COH), with high morbidity and sometimes mortality, that has been managed empirically over the years.

Characterized by a fluid shift from the capillaries to the third space due to increased vascular permeability linked to VEGF .

Severe forms of OHSS appear in 0.5 – 5% of ART cycles.

History:

First reported in 1943 & First death reported in 1951.

Putative Mediators of OHSS:

Ovarian renin/angiotensin, Prostaglandins, Angiogenin, Endothelin, Interleukins, Prolactin, Kinin-kallikrein, and Vascular Endothelial Growth Factors (VEGF)

VEGF:

- Has emerged as a main factor.
- Serum VEGF markedly higher in patients with severe OHSS.
- Expression of VEGF mRNA in granulosa cells are dose and time-dependent by increasing amount of HCG.
- Secreted during luteinisation.
- VEGF increase Vascular Permeability (VP).
- Dopamine Agonist (DA) inhibit VEGF/ VEGFR2 and thereby decrease VP.

Risk Factors of OHSS:

- High Ovarian response.
- Young age.
- Low body weight.
- PCOS.
- High antral follicle count.
- Number of follicles (total) .
- Number of Oocytes retrieved .
- Rapid E2 increase / high absolute E2.
- HCG in luteal phase.
- Pregnancy.

Clinical Picture:

Physical Complaints, Ultrasound, Laboratory evaluation.

Laboratory Abnormalities:

- Leukocytosis.
- Electrolyte imbalances (hyperkalemia ,…).
- Hemoconcentration .
- Elevated liver enzymes.
- Decreased creatinine clearance.

Strategies of Reducing OHSS Risk:

1. Avoid ovarian stimulation: Natural cycle IVF,In vitro maturation(IVM).
2. Reduce Gonadotropin: Mild stimulation, Coasting, late follicular low-dose HCG instead of exogenous FSH
3. Trigger options: Cancel trigger, Trigger with less HCG, Trigger with exogenous LH, Trigger with GnRH agonist,Combination trigger.
4. Prophylaxes: Albumin, Hetastarch, Calcium, Prednisolon, GnRH antagonist use following retrieval, Diet recommendations, Future: VEGF antagonist, HCG antagonist.
5. Avoid Pregnancy: Cancel embryo transfer, Freeze all embryos.
6. Directly prevent Hyperpermeability: Dopamine Agonist, Cabergolin, Quinagolide.

Conclusion ?

Key Words: OHSS, ICSI, IVF, Cabergolin and Quinagolide

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P-33 Poster Problems of IVF babies in Syria

Introduction: IVF in Syria started in 1992 and since that time many babies born and many centers started to work.
This study was performed to analyze the problems of IVF babies in Orient IVF Center.

Material and methods: In the retrospective and prospective analytic study, 1000 IVF deliveries produce 1545 babes during 2007-2008 in Orient Hospital were collected.
The following variables were analyzed: maternal age, multiple pregnancy, prematurity, birth weight, perinatal mortality, birth defects, increased chance of hospitalization, long-term effects of IVF on children.

Results: Multiple pregnancies (40%), prematurity (58%) are the major risk factors of neonatal out come.

- The overall malformation rate was 2.7 for major and 10.6 for minor malformation.
- No major problems in long-term effects.

Conclusion:

- Multiples should minimized by adopting certain guide lines.
- A proper system for follow up of pregnancy and birth after IVF deliveries is needed.
- A higher chance of normal deliveries should be given.

Key words: IVF, ICSI, Birth defects.

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P-34 Poster Role of Flow Cytometry in Recurrent Abortion

White blood cells (WBC)s , T-Lymphocytes, Suppressors , Helpers, and Natural Killers (NK)B-Lymphocytes, from peripheral blood cells of Syrian normal Multiparus 25 Women and 102 Women with recurrent abortions were assessed by flow cytometry using: CD^{+3} , CD^{+4} , CD^{+8} , CD^{+19} , CD^{+45} , CD^{+56}, markers. The mean (WBC) count in the control group was 8072, 8453 in the patient group. The mean percentage of the total lymphocytes count was 33 % in control group , it was 35 % in patient group. The mean count of total Lymphocytes was 2635 in control group, it was 2913 in patient group. The mean count of T-Lymphocytes was 2036 in control group, 2223 in patient group. The B-Lymphocytes count was 213 in control group, 263 in patient group. The mean count of natural killers (NK) was 285 in control group, 360 in patient group.

The results indicate to increased values in patient group comparing with control group , it is probable that these changes would play a crucial role in recurrent abortion.

Key Words: Recurent abortion, flow cytometry, NK cells.

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P-35 Poster Genetic causes of idiopathic male infertility in Syria

Idiopathic male infertility, accounting for 40% of all male infertility cases, is postulated to have a genetic basis. Natural selection prevents the transmission of mutations causing infertility, while this protective mechanism may be overcome by assisted reproduction techniques. Consequently, the identification of genetic factors has become good practice for appropriate management of infertile couples. The aim of this study is to investigate the genetic causes of idiopathic infertility that are widespread in Syrian society; a study which were carried out for the first time in Syria. Genetic causes of idiopathic male infertility were investigated amongst 261-azoospermic Syrian patients.Cytogenetices study and microdeletions of the AZF region were performed. Chromosomal abnormalities were detected in 72 cases (27.6%),numerical chromosomal abnormalities formed

the largest proportion (23.4%), mostly were for Klinefelter Syndrome(47,XXY).Some rare less frequent cases were also detected, like the cases of XX male, and the reciprocal translocation t(X;9).Microdeletions of the AZF region on the Y chromosome were studied for a group of 121 azoospermic patients. A total of 15 microdeletion cases were found (12.4%). Notably the largest number of deletions were in the AZFa region (7 cases). We concluded that chromosomal abnormalities and microdeletions of the AZF region are responsible for spermatogenesis failure, and thus causing infertility, and such defects exist in our society. We emphasize also, the need for genetic testes to all couples seeking reproductive assistance, and the essential of genetic counseling for individuals who were found to have chromosomal or genetical abnormalities, to explain the type and natural of abnormalities and the risks of transmitting this type of abnormalities to offspring.

Key words: idiopathic infertility, azoospermia, chromosomal abnormalities, Microdeletions

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P-36 Poster The Pregnancy Outcomes of Day 2 versus Day 3 Embryo Transfer: A Cross-Sectional Study

Introduction: The objective was to evaluate whether extending the embryo culture period from 2 to 3 days would yield a more optimal selection of viable embryos, thereby increasing the pregnancy rate.

Materials and Methods: We have retrospectively analyzed pregnancy rates in the patients who had embryo transfer either on day 2 (582 patients) or on day 3 (387 patients) post-insemination over a 10-month period. The relationship between the quality score of day 2 and day 3 embryos and their respective pregnancy rates was also analyzed.

Results: The demographic and clinical characteristics were similar in both groups. Embryos transferred on day 2 or day 3, were similar morphologically& we found no difference in the distribution of grades between patients who became pregnant and those who failed to become pregnant. Pregnancy rates were slightly higher in patients who had embryo transfer on day 3 (40.72%) than patients who had transferred on day 2 (38.96%), but this difference was not significant.

proportion of embryos with 2-3 cells, four cells, and 5-7 cells, which selected for transfer, showed significant difference between day 2 and day 3 ($p<0.05$). There was also significant difference between pregnant and non-pregnant women based on embryo cell numbers on day two ($p<0.011$).

Conclusion: Extending the embryo culture period from 2 to 3 days had no adverse effect on pregnancy rate. Embryo transfer could be done on days 2 or 3 according to the convenience of the patient and the medical team.

Keywords*:* Pregnancy Rate, Day 2 or 3 ET, Embryo Grade, Embryo Cell Number

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P-37 Poster Smoking and unexplained infertility using IUI for reproduction.

Aim: To evaluate the effect of smoking habits on the outcome of pregnancy in unexplained infertile couples using IUI as the choice of treatment for both male and female partners. Study: We collected the data by retrospective study from our centre files, during 18months period; we tested whether chemical pregnancy outcome is affected by smoking group by binary logistic regression. Discussion: Our study showed that insemination date for group 1&3(non-smoker couple) requested 10-12 day of stimulation while the group 2(none smoker male and smoker female) group4 (smoker male and female) requested 24-36 hours more stimulation which raises the inquiries of smoking impacts on follicle developments. Multiple pregnancy rates significantly found to be higher in control group than the others, but due to the small amount of cases it could not be used for any clinical outcome.

Conclusion: This study shows that the smoking habit for female or male or both partners could affects the outcome of pregnancy in subfertile group with unexplained infertility.

Keywords: unexplained infertility, smoking,IUI.

Introduction:

Many habits are affecting our lifestyle, smoking habit either for female or male partner or both looks like has a negative influence on pregnancy rate hence take-home baby subsequently in subfertility group during their treatment by IUI as a choice of ART.

Cigarette smoking, with its widely recognized deleterious health effects, accounts for approximately an estimated 13% of causes of female infertility 1. The underlying mechanism is presumed to involve a toxic effect of the various tobacco chemicals such as (cadmium, cotinine and polycyclic aromatic hydrocarbons) on folliculogenesis, gamete mutagenesis or inhibition of granulose cell aromatase 2. This, in turn, leads to an accelerated follicular depletion; in turn it presumed that it causes an oxidative stress in the Graafian follicle, reduced fecundity, and increased miscarriage rate 3&5.

Male partner smoking might cause damage to DNA of spermatozoa 4 thereby affecting future embryo development as well as the detrimental effect to female fertility of passive smoking 3.
The aim of the present study was to clarify the proper approach to ovarian controlled stimulation in smoker couples and to aid fertility specialists and their patients in the decision-making process.
Patients and methods:
We collected the data by retrospective study from our centre files, during 18months period, compared the pregnancy clinical outcome of smoking and non-smoking in 4 groups.
Period extends from 25/9/2008-25/3/2010. A total of 247 couples underwent an IUI as an option of treatment.

Study design:
Primary infertility for 1-2 years, female age 24-33 at the period of study, Study of semen analysis of male partner was normal by at least 2 samples and the last one was not more than 6 months old. Uterus, ovaries and endometrial thickness were normal by ultrasound scan on cycle day2.
Hormonal profile (FSH, E2) on D2 of menses was in normal range. All Abnormal parameters were excluded.
Normal semen analysis of male partner subjected to WHO and Kruger strict criteria.
Smoking habits for couples in study: 2 years and more, and 10 or more cigarettes per day (10-30 cigarettes).

Controlled ovarian stimulation protocol used:
Starting from cycle day 2 or 3 with Clomiphene citrate 50 mg 2 tablets for five days.
HMG (Menogon, Ferring) 75IU on 2-4-6-8-(10 if indicated) days of menses.HCG (Pregnyl, Organon) 10.000 IU was given when the dominant follicle diameter ≥18 mm. The study involved 247 couples underwent an IUI as an option of treatment.
Data on patient age, smoking habits, and variable data related to infertility-treatment were collected from our centre files. Ovarian stimulation characteristics, including the duration of stimulation, total dose of gonadotropin administered, serum E2 levels were indicated, and vaginal ultrasound measurements of follicular diameter, and endometrial thickness on the day of HCG administration were recorded.
Positive chemical pregnancy is defined as positive pregnancy test or elevated βHCG level in the blood, while clinical pregnancy is clear heart beats on 7 weeks by transvaginal ultrasound scan. Pregnancy loss is the absence of fetal heart beats in 7 weeks pregnancy sac.

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P- 38 Poster Hearing loss and ear defects in newborns conceived by ART

Introduction: The assisted reproductive techniques (ART) are used more frequently throughout world. The present research was conducted to determine the effects of these techniques on hearing defect and ear abnormalities.

Materials and methods: In a descriptive, cross-sectional and non-randomized study, the status of hearing and ear abnormalities was assessed in 300 newborns conceived by ART in Royan Institute, Tehran, for sixteen months.

The data were collected from parents, otoscopic examination and otoacoustic emissions (OAEs) test of newborns. The external ear was assessed by otoscopic examination, then OAE test, an objective test that does not need to collaboration of infant, was performed by audiologist. In this test, the OAE wave was registered after a click (stimulus) in 5-20 millisecond intervals with 82 dB SPL altitude. The data were analyzed by statistical tests.

Results: 300 cases were examined by otoscopy. This examination showed that, 2 cases (0.66%) had bilateral malformation in auricle, 2 cases (0.66%) had unilateral perforation of tympanic membrane, 5 cases (1.66%) had unilateral retraction of tympanic membrane, 8 cases (2.66%) had bilateral retraction of tympanic membrane, 1 case (0.33%) had unilateral tympanic membrane inflammation, 1 (0.33%) case had bilateral tympanic membrane inflammation and 1 case (0.33%) had obstruction of external ear canal by wax.

289 cases of 300 newborns were tested by OAEs test. 3 cases (1.03%) did not have bilateral registered wave and had bilateral hearing loss.

Conclusion: This study shows that the hearing and ear screening in newborns conceived by Assisted Reproductive Techniques is contemplative and emphasizes the profitability of continual check up in these newborn infants.

Keywords: Newborn, Assisted Reproductive Techniques, Hearing, Ear

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P-39 Poster Theological challenge of IVF

Introduction: There are various challenges in many cases after successful experiment of IVF - In Vitro Fertilization - technology. Some of these challenges are ethically, some morality and other theological. One of the theological challenges -i.e. imposing limitation upon God's activity as a result of this technology has been discussed.

Materials and Methods: This research is library oriented and analytic. After the subject clarification, for the studying various approaches the principle of these theological approaches is explained, so that besides criticizing these principles, the problems of these points were clear.

Results: claiming any theological challenge of IVF is based on relation between God and nature and God's Will and that of human. The selecting right principle in this issue rejected these challenge. Refuting God's role at the nature management caused this challenge, so Relation between God and nature as the divine watchmaker or only the universe architect is produce distinct between man acts and God's acts.

Conclusion: The Shiite Muslims, through accurate explanation of monotheism in divinity acts and the unity of universe management, have shown the role of God's Will and relation between God's Will and that of man so described that is no position for these challenges.

Keywords: IVF, theology, causality, unity of divine acts, God and nature.

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Oral and Poster Presenters
Indexed by oral (O) and Posters (P)numbers