Middle East Fertility Society

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Abstract Book

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Oral Presentations

Thursday November 17, 2011

Room: Hall A

Session I : Keynote Lectures

O-1 Clinical usefulness of AMH assays: Pitfalls and promises

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Abstract not received

O-2 Infertility treatment, why do so many couples drop out?

Johannes L.H. Evers, MD, PhD, FRCOG
Professor Maastricht University, The Netherlands

Subfertility affects 20% of couples at some point during their reproductive life span and of these, half (10%) seek specialist care. Snick and co-workers (1997) found a 27.4% spontaneous pregnancy rate in the first 12 months following referral by a general practitioner to a fertility clinic. To study demographic and epidemiological aspects of fertility services a geographically well-defined area with limited reproductive tourism and a representative population composition is required. The area of South Limburg is such a geographically well defined health care district, enclosed by national borders on all sides, except for a narrow, 4 kms wide corridor connecting the area to the rest of the Netherlands. Until 1993, when the EU internal borders were opened for health care services, people living in the district had to seek medical care in one of the 7 regional hospitals. This allowed for an almost complete follow-up of treated patients. The sociodemographic composition of the people living in the area reflects the composition of The Netherlands, and for that matter Western Europe, as a whole. Around 650,000 people are living inside the catchment area of the 7 collaborating hospitals. Health insurance is mandatory in The Netherlands and it covers fertility care, including IVF and ICSI.

Few series of prospectively collected data in representative subfertility cohorts with sufficiently high follow-up have been published. In the South-Limburg health care district we investigated the fate of patients visiting a fertility clinic. 1994 different couples were seen consecutively in the clinic. Their demographic data as well as the findings of the fertility investigation and the result of treatment were entered prospectively into a database.

Missing data were obtained by chart review and by contacting the couples or their family doctor. Follow-up was complete for 1894 of 1994 couples (94%). Of all couples, 276 (14%) dropped out, 74 (27%) of these because of the occurrence of a spontaneous, treatment-independent pregnancy, and the remaining 202 (73%) for other reasons. Of these, 20 (10%) dropped out before a diagnosis could be made, 31 (15%) after diagnosis but before treatment was started, and most, 151 (75%), after the start of treatment. Half of the drop-outs had the diagnosis 'obesity' (BMI>30 kg/m^2), whereas this diagnosis was made in only 6% of all patients.

In a related study, we studied 674 couples that were eligible for IVF and were put on the waiting list: 588 (87%) actually started IVF treatment, and 86 (13%) dropped out before starting their first IVF cycle. Follow-up data were obtained in 99% of patients dropping out while on the waiting list for IVF. Reasons for dropping out were pregnancy (37%), personal reasons (passive censoring; 36%), and medical reasons (active censoring; 27%). Most spontaneous pregnancies occurred in the first three months on the waiting list (81%). Dropout rates per indication were similar (male factor 12%, unexplained subfertility 12%, tubal factor 13%, endometriosis 13%). Most of the spontaneous pregnancies occurred in the couples with unexplained subfertility (67%). In the patients diagnosed with endometriosis no spontaneous pregnancies occurred while on the waiting list. Of the 588 couples starting IVF, 480 (82%) completed treatment (i.e. became pregnant or completed three treatment cycles) and 108 (18%) dropped out. Before the first cycle was completed 26 couples (24% of all dropouts) had stopped: 20 because of poor response (active censoring) and six for personal reasons (passive censoring). After the first cycle another 47 couples (44% of all dropouts) withdrew from the program (21 actively and 26 passively censored). After the second cycle 35 couples dropped out (32%) (10 actively and 25 passively censored). Reasons for active censoring were poor response (n=29), poor fertilisation (n=10), poor response with poor fertilisation (n=6), developing overweight with BMI > 30 kg/m^2 (n=3), hypertension (n=1) and improved semen quality not requiring ICSI anymore (n=2). Reasons for dropout due to passive censoring were relational problems (n=6), additional health problems (n=3), psychological burden (n=8), physical burden (n= 4), both psychological and physical burden (n=18), continuation of treatment elsewhere (n=6), and unknown reasons (n=12). In 98 of the 108 dropouts (91%) follow-up data were obtained by sending questionnaires or contacting their family doctor. Only ten couples (1.7% of all couples who entered the program) were lost to follow-up, of whom three were actively censored and seven passively. There were 15 clinical pregnancies in the 98 dropouts (15%): three patients conceived after fertility treatment at another clinic and 12 patients conceived spontaneously, resulting in 13 live births. Of the 51 actively censored couples (follow-up available in 48) 12 did eventually become pregnant (25%) and of the 57 passively censored couples (follow-up in 50) three conceived (6%).

In conclusion, 14% op couples referred for fertility problems dropped out, one quarter because of the occurrence of a (treatment-independent) pregnancy, three quarters for other reasons. On the waiting list for IVF 13% dropped out, one third because of a spontaneous pregnancy, two thirds for other reasons. Finally, during a course of up to three (reimbursed) IVF treatment cycles, 18% dropped out, 13% of whom because of a spontaneous pregnancy occurring in-between IVF treatment cycles, 87% for other reasons.

Oddens and co-workers (1999) reported 24.9% of couples on an IVF waiting list to have psychological distress, as compared to 6.8% in a matched control group of women from the general population. This may be a reason for drop-out. Also the apprehension that pregnancy chances are poor may be a reason for dropping out, although often a discrepancy exists between the objective pregnancy chances and the prognosis as perceived by the couple (Malcolm en Cumming, 2004). Factors such as costs and distance from the clinic do not seem to affect the drop-out rate in an affluent Western society (Malcolm en Cumming, 2004). Penzias (2004) describes how some couples, rather than starting a treatment with a high chance of success (but that also might fail), continue to pursue pregnancy on their own. Fear of failure appears to be a motivating factor in a number of couples before IVF. Perhaps these couples would rather protect their fragile dreams of genetic offspring by avoiding treatment and continuing attempts on their own. You can't fail at a task you never tried.

O-3 The AboulGhar Lecture: Can we rejuvenate old eggs?

Robert F Casper MD

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The aging process is complex and presently it is an incompletely understood phenomenon. While a multitude of factors is thought to modulate cellular and organismal life span, only a few are recognized as being prominently involved; these include impaired mitochondrial function, genomic stability, oxidative stress, caloric intake, and activity of some signalling systems. Age-related decline in oocyte quality is frequently accompanied by genomic instability. However, the primary cause of these anomalies and the molecular factors responsible for diminished oocyte quality remain to be elucidated. **The overall goal** of our research is to improve singleton live birth rates, and reduce the incidence of aneuploidy leading to miscarriages and trisomies in older women attempting to conceive. We **hypothesize** that aging-associated mitochondrial malfunction diminishes energy production and contributes to abnormal spindle formation and/or kinetochore attachment resulting in defects in chromosomal separation during meiosis causing oocyte aneuploidy. **We propose** that dietary supplementation with coenzyme Q10 in older women will improve mitochondrial function in the oocytes. This will be manifested by a decrease in chromosomal non-disjunction and the resulting embryos will thus carry a normal chromosomal complement. This hypothesis is supported by our preliminary data obtained from animal studies.

The potential outcomes of this proposal will enable us to address the mechanisms of ovarian aging and may explain the etiology of decreased fertility observed in older patients. In addition, our work will perhaps lead to feasible intervention strategies such as a natural method to prevent age-related aneuploidy including trisomies, and facilitate single embryo transfer, both of which could have widespread impact on treatment of female infertility.

Keywords: aneuploidy, mitochondria, dietary supplement, coenzyme Q10, mitochondrial nutrients, single embryo transfer

Room: Hall A

Session II : Assisted Reproduction

O-4 The use of GH in poor responders, where do we stand?

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O-5 Can we really treat endometriosis?

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This lecture will show that it is reasonable to conclude that there exists no or only very limited robust evidence today for endometriosis per se causing subfertility, that there is no support for the contention that medical treatment of minimal and mild endometriosis improves pregnancy chances in subfertile couples, and finally that there is statistical evidence for a slight beneficial effect of surgical removal of the lesions, but that the clinical relevance of this is only limited and that the effect may be short-lived. The same holds true for occult disease: no evidence exists to support the contention that medical treatment of occult endometriosis improves pregnancy chances in subfertile couples. Although statistical evidence does exist for a slight beneficial effect of surgical removal of minimal and mild lesions, the clinical relevance of less severe forms of endometriosis, i.e. occult disease, is undefined. Occult disease can (and should) not be removed. Medical treatment will render minimal and mild disease only temporarily invisible, allowing the lesions to re-emerge with time; surgical treatment can only remove visible lesions but will inevitably leave behind dozens, if not hundreds of invisible (occult) ones, which after removal of the visible lesions, may develop into minimal (visible) endometriosis and proceed from there. The problem remains to identify those women whose minimal and mild endometriosis will develop into moderate and severe disease with adhesion and endometrioma formation to such an extent that fertility will be affected. On the long run, all treatments are necessarily (theoretically and in practice) deemed to be ineffective, also in patients with visible disease since, if anything, they will leave behind numerous occult lesions, and, more importantly, they will leave the genetic predisposition and pathophysiological mechanism unaffected that lead to the development of endometriosis in the first place. The disease will recur with time. The main question then is: will the patient succeed in achieving a pregnancy in the interval during which therapy has temporarily reduced the disease to its occult form?

O-6 Stem cell-based medicine: prospects for the future

Karl Illmensee
Genesis Fertility Center, Patra, Greece

Embryo splitting is safely and efficiently used for assisted reproduction in farm animals. In nonhuman primates embryo splitting has resulted in several pregnancies. Human embryo splitting has been reported recently with regard to ART programs. Microsurgical embryo twinning has been carried out to determine its efficiency for blastocyst development. The blastocysts were analysed at the DNA level for proof of monozygocity. Embryo splitting may be advantageous for providing additional embryos to be cryopreserved and for patients with low response to ovarian stimulation. Social, ethical issues and prognostic perspectives are outlined for human embryo twinning in reproductive medicine.

O-7 Androgens or androgen modulating agents for the treatment of poor Responders in IVF

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Dean, Medical School,
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Past Chairman of ESHRE
Past President of IFFS
Abstract not received

Room: Hall B
Session III Assisted Reproduction

O-8 The role of incessant menstruation in ovarian carcinogenesis

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Epithelial ovarian carcinomas
A heterogeneous group of neoplasms, constitute the predominant and most lethal form of gonadal malignancies. The serous, endometrioid, clear cell, and mucinous histotypes account for, respectively, 60-80%, 10-25%, 5-10%, and 3-10% of these tumours.
Most serous cancers appear to originate from precursor lesions at the fimbriated end of the salpinx, whereas most endometrioid and clear cell cancers seem to derive from atypical endometriosis.

Effect of family planning choices on the ovarian cancer risk

Oral contraceptives (OCs) and tubal ligation substantially reduce the risk of serous, endometrioid, and clear cell subgroups, but have no significant effect on mucinous tumours, which probably follow a different oncogenic pathway.

The incessant menstruation hypothesis

We hypothesize that serous, endometrioid, and clear cell cancers share a common pathogenetic mechanism, i.e., iron-induced oxidative stress derived from retrograde menstruation. Fimbriae floating in bloody peritoneal fluid are exposed to the action of catalytic iron and to the genotoxic effect of reactive oxygen species (ROS), generated from hemolysis of erythrocytes by pelvic macrophages. This would explain the distal site of tubal intraepithelial neoplasia. Collection of blood inside endometriotic cysts would lead to the same type of genotoxic insult on gonadal endometrial implants. This would explain why endometriosis-associated cancers develop much more frequently in the ovary than at extragonadal sites, despite the fact that endometriosis occurs just as frequently away from the ovary than on the ovary.

Prevention

Bilateral salpingectomy in women not seeking conception should be advised whenever planning surgery for independent indications, thus possibly achieving primary prevention of serous, endometrioid, and clear cell cancers, whilst preserving ovarian function. Whenever feasible, OC use should be favoured for prolonged periods of time, especially in women with endometriosis.

* Vercellini P, Crosignani P, Somigliana E, Viganò P, Buggio L, Bolis G, Fedele L. The 'incessant menstruation' hypothesis: a mechanistic ovarian cancer model with implications for prevention.

Hum Reprod. 2011;26(9):2262-2273

O-9 The genetic profile of SNP(s) in poor responder patients.

Dimitrios Loutradis (Greece)

1st Department of OB/GYN Athens Medical School .Division of Human Reproduction.

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.

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 analyse three different loci -polymorphisms in ESR1 Pvu II, ESR2 Rsa I and Ser680Asn FSH receptor gene- in a Greek population and their involvement in stimulation outcome and pregnancy rates.

Each locus was studied alone, and in combination with the others. We performed both restriction fragment length polymorphism analysis and real-time polymerase chain reaction. A total of 109 normally ovulating female patients underwent IVF or ICSI.

Studying each locus alone, no significant results were drawn for ESR1 and ESR2 genes. Concerning the FSHR polymorphism, the women carrying the AA variant presented higher total amount of gonadotrophins used (*P*=0,048) and tended to have higher number of stimulation days (*P*=0,057). Considering the ESR1 and FSHR gene polymorphisms in combination, the TC/SA combination presents the highest number of pregnancies in poor responders group (3/4 pregnancies carried this genotype), in good responders group (4/12 pregnancies carried this genotype) and in the total population (10/26 pregnancies carried this genotype). Except the CC/AA combination, all other genotype combinations presented incidence of pregnancy, with TC/SA having the highest incidence. The CC/AA genotype presents the worst profile of ovulation induction, confirming a poor responder profile: the total amount of gonadotrophins used was highest in CC/AA group (*P*<0,05). The peak E2, the number of follicles and of retrieved oocytes and the pregnancy rate were significantly lower (*P*<0,05). This genotype combination seems to be over-presented in the poor responders group in a statistically significant way (*P*=0,038). Women with CC/AA combination have 1,5-2,4 times more risk to be poor responders in comparison with women that do not carry that combination.

Conclusion: This study supports the hypothesis that a multigenic model, including the well studied ESR1 and FSHR genes is involved in the controlled ovarian stimulation outcome indicating that the CC/AA genotype presents the worst ovulation induction profile, while the TC/SA genotype presents the higher number of pregnancies in our population.

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Curr Pharm Biotechnol. 2011 Jun 9.
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Loutradis D, Theofanakis C, Anagnostou E, Mavrogianni D, Partsinevelos GA.
Curr Pharm Biotechnol. 2011 Jun 9

O-10 The Future of Medical Education: From the Classroom to i-Tune

Johnny Awwad, MD
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Curriculum planners are questioning both the content and the methods of medical education. While content has been redefined lately, the mechanism for its delivery has not been revisited for quite some time now. A significant body of literature has shown that the acquisition of new knowledge does not necessarily lead to new behavior. Students are not subserviently waiting to be passively filled with 'learning'. Students' preferred learning styles may be different from teachers' preferred teaching styles. Ample evidence exists to support the implementation of more active and self-directed learning strategies to promote behavioral change.

The focus of this presentation is how educational planning might be better guided by an understanding of how physicians learn. The following concepts will be revisited:

- Disruptive innovation model of Clayton Christensen
- David Kolb's experiential learning model
- McCarthy 4MAT learning styles sequence
- Virtual learning environments
- Simulation models

Such concepts can never be achieved within the restrictions of time and place imposed by classic traditional learning.

O-11 Evidence-based management of repeated implantation failure after assisted reproduction

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Clinical and Scientific Director, Alexandria Fertility Center,
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The problem of repeated implantation failure in IVF presents a challenge to any infertility specialist working in the field of assisted conception. Various suggestions have been proposed to tackle this problem. These include (1) antiphospholipid antibody testing and

treatment, (2) allogenic lymphocyte therapy, (3) intra-tubal transfer of zygotes or embryos, (4) blastocyst transfer, (5) sequential embryo transfer, (6) assisted hatching, (7) co-cultures, (8) pre-implantation genetic diagnosis as well as (9) cytoplasmic transfer, (10) transfer of all embryos, (11) natural cycle IVF, (12) the use of EmbryoGlue or sildenafil, as well as (13) hysteroscopy. Randomized controlled trials have shown that only assisted hatching (Sallam et al, 2003) and hysteroscopy (Demirol et al, 2004) are beneficial, while the other techniques still await further assessment.

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Room : Hall B

Session IV: Reproduction

O-12 Evidence based diagnosis and management of poor responders

Hassan N. Sallam, MD, FRCOG, PhD (London)

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It is estimated that about 10 percent of women treated with IVF and ICSI are "poor responders", but various criteria have been used to define this condition (Surrey and Schoolcraft, 2000). In order to establish an objective definition, we have constructed ROC curves for our patients and found that, based on our results, poor responders are patients from whom less than 5, 6 or 8 oocytes are retrieved, when undergoing treatment with ICSI, IVF or TeSE/ICSI, respectively (Sallam et al, 2005). Various regimens have been suggested and used for the treatment of poor responders. These include (1) increasing the dose of HMG, (2) using purified HMG or recFSH, (3) starting FSH stimulation in the late luteal phase, (4) diminishing the duration of GnRHa (flare up protocols), (5) diminishing the dose of GnRHa, (6) using GnRH antagonist (single or multiple dose protocols), (7) performing IVF/ICSI in natural unstimulated cycles (with or without GnRH antagonists), (8) adding clomiphene citrate, growth hormone, DHEA or L-arginine to HMG/FSH stimulation. Randomised trials (RCTs) have shown that none of the regimens suggested is better than the others except that in one small RCT, the use of recFSH improved the clinical pregnancy rate significantly compared to HMG (Raga et al, 1999).

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O-13 Internet, vitrification, and egg donation

F. Sanchez (Spain)

In a globalized world where Internet is the axis of the great social movements, the medicine's future is also based on the world of communication and information, making the development of science simple, easy and economical

Since the onset of vitrification, the egg vitrification technique has proved to be effective and safe in terms of survival, fertilization, pregnancy and live birth rates, as confirmed by numerous publications

The future is egg banks, working in a similar way as semen banks done but with a worldwide perspective. With modern communications we can send vitrified eggs from any place in the world to any other place within24 hours.

We need a training system for biologists and doctors to get used to this new sample handling, but it is easier to send a biologist for training than move hundreds of recipients for embryo transfer

We must make a good match according to the phenotype of the recipient but we also need to respect the legal, moral and religious values of donors, recipients and professionals working in the field, as well as the countries where they do.

Working as partner institutions can be sent over the Internet the characteristics of the recipient to a donor recruitment center; the couple continues with their doctor, who is known and trusted, but the problem of donor recruitment is solved. In the same way you can solve the donation to ethnic minorities in any country.

Sometimes there are couples living in areas where laws limit the practice of medicine and can't do the treatments, so they should move to places where treatments are permitted, but thanks to remote monitoring over the Internet, travel days are minimized greatly, or eliminated completely. On other occasions physicians are not skilled enough and thanks to support networks in internet can offer first class treatments

This is the train to the future and we must catch it before it passes because otherwise we will lose self-development opportunities and we will not fulfil our mission of helping our patients to realize the dream of having a child come true

O-14 Medical treatment of endometriosis revised

P.G. Crosignani

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Endometriosis

- Pelvic pain and infertility are the two most frequently reported symptoms.

Pelvic pain.

- The 'amount of the disease' is not related with the severity of pain.
- Surgical ablation of ectopic tissue quite often improves the symptom.
- Frequently there is a postsurgical recurrence of pain and this is why today medical treatment is getting more and more popular.
- Based on the clinical success registered in the last twenty years, OCs or progestins are the first choice drugs for the safe and cheap control of pelvic pain.

Infertility

- Endometriosis 'per se' does not cause infertility.
- Extensive pelvic adhesions frequently associated with endometriosis and loss of ovarian follicles caused by the growth of endometriotic cysts can both reduce fecundity.
- Surgical ablation of endometriomas may also reduce fecundity and the effect is particularly evident in patients with bilateral cysts.
- Long term use of hormonal contraception offers specific protection against postsurgical endometrioma recurrence.

*Paolo Vercellini, PierGiorgio Crosignani, Edgardo Somigliana, Paola Viganò, Maria Pina Frattaruolo, and Luigi Fedele 'Waiting for Godot': a commonsense approach to the medical treatment of endometriosis. Hum. Reprod. (2011) 26(1): 3-13.

O-15 The addition of Sphingosine-1-phosphate to human oocytes decreases embryos fragmentation

Antoine Hannoun, Ghina Ghaziri, Antoine Abu Musa, Daad Farhat, Tony G Zreik, Fatiha Hajameh, Johnny Awwad

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Apoptosis is implicated in the fragmentation of preimplantation mammalian embryos, yet the extent of this association remains controversial. The aim of this study was to assess the ability of sphingosine-1-phosphate (S1P), a known anti-apoptotic substance, to reduce the fragmentation rate of human preimplantation embryos when added to their culture microenvironment. Mature human oocytes were inseminated using intracytoplasmic sperm injection, incubated for 3 days and evaluated for embryo quality and fragmentation by the same embryologist. Oocytes in the study group were manipulated and cultured in culture medium supplemented with S1P to a 20 mcmol/l concentration. A total of 46 patients donated 177 mature oocytes for the study group and 546 oocytes for the control group. The fertilization rate was significantly lower in the S1P-supplemented group (52.4% versus

67.3%; P = 0.002) and the proportion of grade I embryos with less than 15% fragmentation was significantly higher in the same group (79.5% versus 53.9%; P < 0.0001). Sphingosine-1-phosphate added to the culture medium of human preimplantation embryos is associated with a significantly lower fragmentation rate and hence better quality embryos. The clinical significance of these findings on reproductive outcome remains highly speculative awaiting further studies to translate this improvement in embryo quality into better pregnancy rates.

Room: Hall C

Session V: Ovarian Stimulation

O-16 Gonadotropin-releasing hormone analogue cotreatment does not preserve ovarian function in young women receiving cyclophosphamide-based chemotherapy: a prospective, multicenter, randomized trial

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Objective: To determine whether gonadotropin-releasing hormone (GnRH) analogue administration could provide better reproductive outcomes for young women receiving cyclophosphamide-based chemotherapy for treatment of breast cancer.

Design: Multicenter, randomized controlled trial.

Setting: University-affiliated research centers.

Patient(s): One hundred women (18-37 years) receiving cyclophosphamide-based chemotherapy for treatment of breast cancer.

Intervention(s): Randomization was performed using computer-generated, variable block randomization with stratification according to timing of first presentation. When chemotherapy was planned to be started 4–7 days after first presentation, women received either immediate GnRH antagonist (GnRH-ant) & GnRH agonist (GnRH-a) followed 3 days later by chemotherapy (Arm I) or chemotherapy (Arm II). GnRH-ant was administered for 7 days and GnRH-a continued (as a monthly dose) till end of chemotherapy. When

chemotherapy was planned to be started later than 10 days after the initial presentation, women received either immediate GnRH-a followed 10-14 days later by chemotherapy (Arm III) or chemotherapy (Arm IV).

Main Outcome Measure(s): Resumption of menstruation after chemotherapy was the primary outcome. Post-chemotherapy hormonal changes (FSH, LH, E_2 and AMH) were secondary outcomes.

Result(s): In arm I, 64% and 80% of cases resumed menses at 6 and 12 months following termination of the GnRH-ant/GnRH-a/chemotherapy protocol versus 72% and 80% of cases in the control group (P > 0.05). There were no statistically significant differences in FSH, LH and E_2 levels, whether at 6 and 12 months (p>0.05). At 12 months, AMH was comparable between both groups (p=0.34).

In arm III, 68% and 84% resumed menses at 6 and12 months following termination of the GnRH-a/chemotherapy protocol versus 76% and 80% in the control group (p>0.05).There were no statistically significant differences in FSH, LH and E_2 levels at any time points (p>0.05). At 12 months, AMH was comparable between both groups (p=0.07).

Conclusion(s): GnRH analogue administration before and during cyclophosphamide-based chemotherapy for young women with breast cancer does not appear to preserve post-treatment ovarian function.

Key Words: chemotherapy, gonadotrophin-releasing hormone analogues, ovarian function, randomized trial.

O-17 Gonadotrophin-releasing hormone antagonists for assisted reproductive technology in women with poor ovarian response. Subgroup analysis of Cochrane systematic review and meta-analysis

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BACKGROUND: Treatment of women with poor ovarian response during IVF/ICSI treatment is so complicated. Most of treatment protocols used lead to more cost without improvement in pregnancy rate. The aim of the present subgroup analysis was to evaluate the efficacy of GnRH antagonist in poor responders. **METHODS:** We conducted a systematic review and meta-analysis of randomized trials comparing the effect of long acting r FSH versus standard daily administrated rFSH in IVF/ICSI cycles. **Primary outcome:** ongoing pregnancy rate. **Secondary outcomes:** clinical pregnancy rate, miscarriage rate, duration of stimulation, amount of FSH, number of retrieved oocytes, number of mature oocytes and cancellation rate. Searches (until Sep. 2010) were conducted in MEDLINE, EMBASE, Science Direct, Cochrane Library and databases of abstracts. **RESULTS:** Six randomized trials entailing 919 women were included. There was no evidence of a statistically significant difference in ongoing pregnancy rate (3 RCTs; OR: 1.17, 95% CI 0.53 to 2.58) for GnRH antagonist versus long GnRH agonist protocol. **CONCLUSION:** In view of its equivalence, GnRH antagonist protocol for pituitary desensitization is an alternative for standard long GnRH agonist protocol in poor responder patients undergoing IVF/ICSI treatment cycles

KEY WORDS: GnRH agonist/ GnRH agonist /IVF/ICSI

O-18 Comparing the Cycle Characteristics of Two Different Protocol of Letrozole Treatment in Clomiphene Citrate Resistant PCOS patients.

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Mashhad IVF Center IRAN

Introduction: About 10 years ago aromatase inhibitors (AI) were introduced as an effective agent for ovulation induction. There are still many questions about the ideal protocol for Letrozole (LTZ) as the commonest AI used in ovulation induction. In the present study we compared the ultrasonographic and hormonal characteristics of two different starting date of LTZ in CC failure patients and we compared different predictor factors for ovulation as well. Method and Materials: The study was done during 8 month from March 2010, in Mashhad IVF center, a university based clinic. During this time seventy PCOS infertile patients (according to NIH criteria) who were CC failures in at least 3 CC treatment cycle were randomly divided into two groups. In group A, Letrozole (5 mg for five days) was started at day 3 and in group B at day 5 of menstrual cycle. Hormonal profile workup (LH, FSH, E2, Testosterone, and androstendione), and ultrasonographic scanning was done at cycle day 3 and two days after completion of LTZ treatment. HCG was injected if there was at least one follicle ≥18 mm. The pregnancy was determined by observing fetal heart movement 4 weeks after HCG. The cycle characteristics, the ovulation, and pregnancy rate were compared in the two groups. The statistical analysis was done by Fisher, t– test, logistic regression, and Man- Whitney test. Results: Considering the female and male age, duration of infertility, the number of previous treatment cycle, the pattern of menstrual irregularity (amenorrhea or oligomenorrhea), the basal FSH\LH ratio, TSH and prolactin levels, and the ovarian pattern(PCO or non PCO) both groups were matched. The ovulation rate (48.6 versus 32.4 in group A and B respectively) was not significantly different, the endometrial thickness, the number of mature oocytes, and length of follicular phase were not significantly different between the two groups either. Testosterone and androstenedione level were increased after treatment. This increase was more pronounced in testosterone level for group A patients, and androstendione in group B patients. Interestingly the patients with higher basal androstendione and testostrone were significantly less ovulatory in both groups (p=0.027 and 0.021). The pregnancy rate was 12.1 versus 9.4 in group A and B respectively that was not significantly different.Conclusion: Letrozole is an effective treatment in CC failure PCOS patients. Day 3 versus day 5 results were not significantly different. Testostrone and androstendione levels before treatment were significant predictors for the appropriate response. Lowering the androgen levels before treatment may be part of a favorable protocol.Key words: Letrozole, Hormonal profile, Ovarian response, Poly cystic ovarian syndrome (PCOS) Address: 11 Hooshiar 3 Street Mashhad IRAN 9185715371 E.mail: n_m_farr@yahoo.com

O-19 Is there a place for Corifollitropin alfa in IVF/IVSI cycles? A systematic review and meta-analysis

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BACKGROUND: Corifollitropin alfa, a newly developed long acting r-FSH, has been proposed as an alternative for daily r-FSH administration in women undergoing controlled ovarian stimulation in GnRH antagonist down regulated IVF/ICSI treatment cycles. The aim of the present review was to evaluate the efficacy and safety of this new medication.

METHODS: We conducted a systematic review and meta-analysis of randomized trials comparing the effect of long acting r FSH versus standard daily administrated rFSH in IVF/ICSI cycles.

Primary outcome: ongoing pregnancy rate.

Secondary outcomes: Live birth rate, clinical pregnancy rate, miscarriage rate, duration of stimulation, amount of FSH, number of retrieved oocytes, number of mature oocytes, number of embryos obtained, fertilization rate, OHSS incidence, and adverse events. Searches (until Sep. 2010) were conducted in MEDLINE, EMBASE, Science Direct, Cochrane Library and databases of abstracts.

RESULTS: Four randomized trials entailing 2326 women were included. There was no evidence of a statistically significant difference in ongoing pregnancy rate (4 RCTs; OR: 0.80, 95% CI 0.54 to 1.20) for corifollitropin alpha versus r FSH.

CONCLUSION: In view of its equivalence, corifollitropin alfa is an alternative for daily rFSH injections in normal responder patients undergoing ovarian stimulation with GnRH antagonist cycles with comparable pregnancy rates.

KEY WORDS: Corifollitropin alfa / FSH-CTP, follicle stimulating hormone-C-terminal peptide, Org 36286, Org36286, Org-36286, r FSH/meta-analysis/IVF/ICSI

Room : Hall A

Session VI: Andrology

O-20 Correlation between semen intracellular parameters and fertilization rates following ICSI

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Introduction: Nowadays, using functional tests alongside with the conventional semen analysis could be effective in foreseeing the treatment results. This study was set out to investigate how mitochondrial membrane potential, DNA fragmentation index and apoptosis in ejaculated spermatozoa correlate with each other and also laboratory outcomes after intracytoplasmic sperm injection (ICSI).

Materials and methods

We examined ejaculated spermatozoa from 120 patients undergoing ICSI treatment. Sperm DNA fragmentation Index was assessed by sperm chromatin dispersion test (SCA). Mitochondrial membrane potential (MMP) and incidence of apoptosis were also evaluated by flow cytometry.

Result

There were significant positive correlation between apoptosis, MMP and DNA fragmentation index ($P<0.01$ and $P<0.05$) but these parameters did not show any significant correspondence with laboratory ICSI outcomes.

Conclusion

Despite the existence of a relationship between intracellular factors, in this study no relationship between these parameters with fertilization rate was observed. This result could be caused by choosing high quality sperms according to the classical factors by an embryologist in ICSI process and more research might be helpful.

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O-21 Earlier semen production for ICSI in Ramadan: a suitable option?

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Introduction: Ramadan is the Muslims' holy month, during which fasting is required by every able-bodied adult Muslim during daylight hours (from dawn to sunset).Producing a semen sample– as required for ICSI–breaks that fast. To avoid that, some fertility units in Ramadan work during the night, which involves major rescheduling, while others use a frozen semen sample, which involves extra cost. A novel alternative is early sample production, when the husband is asked to produce a semen sample at home just before dawn (thus, avoiding breaking the fast) on the day of his wife's oocyte pick-up (OPU), and bring it to the unit at the start of the working day, 6 hours later. This delay goes against standard practice, but if the samples were produced in a buffered medium and kept at room temperature, will they be suitable for ICSI? We set up this study to investigate.

Material and Method: The study was conducted at the Istishari Fertility Center in Amman, Jordan, during Ramadan 2011, when 13 couples undergoing ICSI had the early sample production method. A sterile container loaded with 3 ml buffered G-MOPS+ media (Vitrolife -Sweden) was given to the husband the day before OPU, to keep in the home fridge, and

remove it to room temperature 1 hour prior to producing the sample. The sample was produced just before fasting starts (at about 3-4 am) in the container and kept at room temperature till they come to the unit at the time of the OPU, about 6-8 hours later.
The semen samples were analyzed 6-8hours after the time of production and assessed for suitability for use with ICSI. The analysis results (volume, concentration, motility, progression and normal morphology) were compared with those for the same patients done earlier during the diagnostic phase and produced in the standard way (i.e., analyzed within 1 hour of production), therefore each patient acted as his own control. Logarithmic transformation was performed on the data to achieve normal distribution, and paired t-test was used to check for statistical significance at a level of $P< 0.05$.
Results: The median for the diagnostic phase samples for volume was 3 mL, concentration 28 Mil/mL, motility 60%, progression 2.5/4, and normal morphology 10%. The corresponding values for the early production samples were 3 mL, 17 Mil/mL, 45%, 2.5/4, and 10%. None of the differences were statistically significant. In addition, all patients produced samples suitable for ICSI.
Conclusion: The production of semen samples 6-8 hours before ICSI -in the presence of buffered medium- could be offered and chosen safely, leading to a more patient-friendly treatment in Ramadan.
Keywords: Ramadan, ICSI, Semen production

O-22 Study of sperm protein profile in oligo- and normozoospermic patients with varicocele using two dimensional electrophoresis

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The aim of this study was to compare the sperm protein profile between oligo- and normozoospermic patients with varicocele. Sperm samples of 20 normozoospermic and 20 oligozoospermic patients with varicocele were characterized using two dimensional electrophoresis (group 1 and group 2, respectively). Differences in protein expression were established using gel analysis software before attempted protein identification. In the group 2 samples, we have noted 30 consistent differences in protein expression (4 spots missing, 16 more abundant, 10 less abundant) compared with the group 1. In conclusion, we have showed that sperm proteome in patients with varicocele is highly various. The identified proteins demonstrated that varicocele affect on proteins including heat shock proteins, mitochondrial proteins, cytoskeleton proteins and so on. This study represents a proof of

principle that proteomics may be useful to study male infertility and defects in sperm function.

Key words: infertility/varicocele/sperm/proteomics/ 2-DE

O-23 The correlation of Intracellular ROS, DF and MMP in human sperm with fertilization rate and embryo quality in men candidate for ICSI treatment

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Introduction: Among the couples, who decide to have children, 15 % of them are infertile and male factor is responsible for 25 % of these cases. Reactive Oxygen Species (ROS) is the reason of 25-40% male infertility. The aim of present study was the evaluation of intracellular ROS, DNA fragmentation (DF) and mitochondrial membrane potential (MMP) in human sperm and their correlation with fertilization rate and embryo quality.

Materials and methods: at this study, 62 selected men's semen samples for ICSI were obtained from subjects underwent seminal fluid evaluation at Royan Institute. After swim-up procedures, the intracellular sperm factors were assessed by flowcytometry and DCFH-DA (H_2O_2)، DHE ($O_2^{-^\circ}$), TUNEL kit (DF), JC-1 (MMP) probes.

Results: The statistical analysis by Spearman coefficient correlation and Kruskal Wallis Test showed that the high level of intracellular H_2O_2 reduced significantly the formation of 2PN ($p<0.01$). Meanwhile, low level of $O_2^{-^\circ}$ could improve the quality of Z1 score ($p<0.05$). Also, low MMP and DF didn't have any effects on the rate of fertilization and embryo quality.

Conclusion: This study showed that the high level of intracellular ROS in human sperm could interfere in formation of 2PN and may reduce the embryo quality after ICSI treatment.

Keyword: sperm**,** Intracellular ROS, DF, MMP, ICSI outcomes

Room: Hall B

Session VII: Reproduction

O-24 Are there detrimental cut-offs for progesterone and or progesterone/oestradiol ratio on the day of hCG administration among blastocyst transfers?

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Objective: To identify if there are certain cutoff levels for P and/or P/E2 ratio on the day of hCG that would be defined as detrimental for occurrence or continuation of pregnancy in women with normal ovarian reserve undergoing blastocyst embryo transfer (BET).
Design: Prospective cohort study.
Setting: Private and university fertility centers.
Materials and Methods: A total of 183 women, who had shown cavitating blastocyst-stage embryos on day 5 and underwent day 5 BET
Results: Using ROC, there were no detrimental cut offs, neither for P (AUC was 0.51, 95% CI=0.43-0.59) nor for P/E2 ratio (AUC was 0.52, 95%CI=0.44-0.61) for occurrence of clinical pregnancy among women undergoing day 5 BET. Pregnant women and those who did not achieve pregnancy were balanced in respect of the patients and ICSI cycle characteristics. For ongoing pregnancy/live birth (LB), using ROC, there were no detrimental cut offs, neither for P (AUC was 0.49, 95% CI = 0.41 - 0.58), nor for P/E2 ratio (AUC was 0.51, CI = 0.43- 0.60) among these women.
Conclusions: There are no detrimental cutoff levels for P and P/E2 ratio on the day of HCG among women undergoing BET, whether for clinical or ongoing pregnancy/LB.

Key Words: premature luteinization, blastocyst transfer, long protocol.

O-25 The effect of acute aromatase inhibition on breast parenchymal enhancement in Magnetic Resonance Imaging: a prospective pilot clinical trial.

Running Title: Acute aromatase inhibition in postmenopausal women

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The study was funded by the Canadian Foundation for Women's Health (CFWH), NM is supported by the health professional and Bisby fellowships from the Canadian Institute of Health Research and RC is supported by Camille Dan Family Research Chair in Translational Cell Biology. ***Corresponding Author:***
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Authors declare no conflict of interest related to this study.

Objective: The breast is highly hormonally sensitive especially to the sex steroid hormone estrogen. Both physiologic and iatrogenic steroid hormone modifications could affect how the breast tissue may appear in breast imaging techniques. We hypothesized that estrogen deprivation therapy could reduce breast non specific enhancement on MRI. **Methods:** A prospective pilot phase II clinical trial. The study was approved by Health Canada and the institutional research ethics board and patients signed informed consents. Sixteen healthy postmenopausal women were enrolled and fourteen completed the study. Baseline breast MRI was done followed one month later by administration of a high dose aromatase inhibitor (letrozole 12.5 mg/day) for 3 successive days prior to a second breast MRI. Background breast parenchymal enhancement was compared between the pre and post treatment studies. **Results:** There was a statistically significant reduction of the average background breast enhancement after treatment with aromatase inhibitors compared to the baseline MRI. Of particular interest, specific areas of benign breast enhancement were reduced post AI treatment. No significant adverse effects were recorded using this relatively high dose of the aromatase inhibitors. **Conclusion:** This preliminary study provided evidence that aromatase inhibitors could reduce the parenchymal background enhancement of the benign breast tissue during MRI and may improve the specificity of the technique. **Trial Registration:** Clinicaltrials.gov NCT01129622.

Key words: Breast, MRI, Aromatase inhibitors, menopause, enhancement.

O-26 Sperm fragmentation evaluation by hypo osmotic swelling test (HOST) and Motile sperm organelle morphology examination (MSOME).

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Introduction; Sperm DNA fragmentation is a cause of male infertility. Classical spermocytogram by Kruger criteria is not correlated with sperm fragmentation and not related to pregnancy in ICSI procedure. MSOME is suggested to have a low DNA fragmentation. Selection of the best spermatozoa with no vacuoles by insemination morphological selected ICSI (IMSI) is suggested to have a better pregnancy rate by assisted reproductive technique (ART). Recent studies showed that spermatozoa with HOST with certain forms (d, e) have a low level of DNA fragmentation. The aim of our study was to compare MSOME to HOST and both tests to a validated fragmentation test the Sperm Chromatin Dispersion (SCD) to have a simple and a cheap test during ART.

Material and methods; A semen sample is obtained from 77 men from an unselected couples undergoing infertility workup. A aliquot of sperm was incubated for 30 minutes with a hypo osmotic solution prepared according to the WHO manual 2010 then at least 100 motile spermatozoa per semen sample is evaluated at greater than or equal to 3000× magnification by inverted microscope equipped with differential interference contrast optics. Spermatozoa are classified according to the nuclear content by Vanderzwalmen classification and at the same time according to their reaction to the HOST. Samples are sent

to the Lebanese university for SCD test and the results were given at the end of the study for statistical analysis.

Results; The age of the patients is 39.24 years (±7.29) 12 patients are smokers (15,58%), 15 patients (19.48%) are regular alcohol consumer and 27 couples (35%) have a previous miscarriage. Only 16 patients (20%) have a complete normal semen analysis according to Kruger criteria. Mean MSOME score is 44.5%± 12.95% and HOST is 59.65± 13%. No correlation is found between MSOME and HOST (r=0.162 p=0.160). No correlation is found between MSOME and SCD. By a regression analysis there is a significant negative correlation between SCD and HOST (form b to g) (r=0.386 p=0.035)

Conclusion; This study demonstrates a negative correlation between SCD and HOST. HOST is a simple and cheap test and could be proposed as a screening and diagnostic test. MSOME is not correlated to SCD and cannot be proposed as a fragmentation test. More study is needed to confirm this preliminary study and to use HOST for treatment as a selection method in the future.

O-27 Toxic effect of *Carthamus tinctorius L*. (Safflower) extract in the mouse testis

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Introduction:

Natural products of plant origin are still a major part of traditional medicinal systems in many countries. *Carthamus tinctorius L*. (CT), also named safflower, is one of the popular herbs traditionally consumed raw amongst people in Iran. The main objective of the present study was to investigate the effects of aqueous extract of CT on the mouse testis.

Material and methods:

Experimental group received CT extract at the dose of 40 mg/kg for 25 consecutive days and control group received only distilled water. Testicular histopathology, morphometric analysis and immunohistochemistry assessments were performed for evaluation of the CT effects on testis.

Result:

There was a significant reduction for bcl-2, an important anti-apoptotic factor, expression with CT treatment (P<0.01). Histopathological criteria such as epithelial vacuolization, sloughing of germ and detachment were significantly decreased in CT treated mice (P<0.01). Moephometric assessments showed that seminiferous epithelium height and seminiferous tubule diameter were markedly reduced in CT group (P<0.01). There was a significant reduction in Johnsen's scoreing with CT treatment (P<0.01).

Conclusions:

It is concluded that, CT may have adverse effects in male fertility.

Key words: Spermatogenesis, *Carthamus tinctorius L*. (safflower) extract, Apoptosis, Mice

Room: Hall C
Session VIII: Infertility

O-28 Update on the physiology of implantation

Professor :A. MAKRIGIANNAKIS MD, PhD
University of Crete

The immunological relationship between mother and conceptus still remains a mystery, although the recent advances in molecular biology have lighten a lot of the parameters that participate in feto-maternal cross-talk during implantation. The atypical expression of major histocompatibility complex (MHC), the specific role of some hormones and cytokines, as well as the modified function of cellular constituents of the feto-maternal interface, represent substantive parameters of fetomaternal immunotolerance during implantation. However the implantation process is currently considered the most important limiting factor for the establishment of a viable pregnancy and the fertility physician is often called upon to perform the unpleasant task of counselling an infertile couple after repeated implantation failure (RIF). Aetiology is often not clear and treatment options are indistinct. Some of these include hysteroscopic treatment, myomectomy, preimplantation genetic diagnosis for aneuploidy screening (PGS), assisted hatching, blastocyst transfer, zygote intra-Fallopian transfer (ZIFT), salpingectomy of hydrosalpinges and immunological treatment. Since some of these remedies have not been proven to be effective(the evidence behind some of these is robust), assisted reproduction programmes should resist offering treatment options that are not evidence based at least until well designed randomized studies show the value of what are today considered as empirical treatments.

O-29 Poor ICSI outcome is associated with an increase of total CD16+ CD + NK Cells and activated CD69+ NK Cells in peripheral blood

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Introduction:

The relationship between peripheral blood Natural Killer (NK) Cells and pregnancy outcome after ICSI treatment has been examined in several studies (Beer et al.,1996; Yamada et al.,2003; Thum et al.,2004; Baczkowski et al , and their effects on reproductive failure is still controversial.

The aim of this study was to evaluate the effect of the peripheral NK Cells, including total CD16+ CD56+ and activation marker CD69+ on pregnancy outcome after ICSI treatment.

Methods:

This prospective observational study of 312 randomly selected women who underwent ICSI treatment from January 2008 to January 2009. Blood samples were obtained on the day of oocytes retrieval prior to the procedure. The CD16+ CD56+ NK Cells, CD69+ Activated NK Cells and CD19+ B-Cells were identified by flow cytometry.

The results were presented as a percentage of total Lymphocytes, and their relationship to ICSI outcome were analyzed.

Results:

The mean percentage (±SD) of CD16+ CD56+ NK Cells was 9.1± 5.4 for pregnant women and 11.6± 4.92 for non-pregnant women (Implantation failure group).

While the mean percentage (±SD) of activated CD69+ NK Cells was 0.5± 0.4 for pregnant women and 1.4 ± 0.36 for non-pregnant women.

Receiver operating characteristic (ROC) curve and area under curve (AUC) analysis were performed to select CD16+ CD56+ and CD69+ thresholds for further statistical analysis.

The clinical pregnancy rate (CPR) was significantly lower (P-value <0.05) for women with CD16+ CD56+ NK Cells percentage more than 18% (CPR was 25%), compared with percentage below this value (CPR was 52.38%).

Moreover, CPR was also significantly lower (P-value <0.05) when the percentage of activated CD69+ NK Cells was more than 1% (CPR was 27.54), compared with the percentage below this value (CPR was 54.11) .

Conclusions:

The present study indicates that increase in the percentage of CD16+ CD56+ NK Cells or activated CD 69+ NK Cells in the peripheral blood is associated with a reduced implantation rate and clinical pregnancy rate in ICSI treatment

Keywords : NK Cells, ICSI, Activated CD69+ and Implantation failure.

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O-30 Embryo twinning with applications in assisted reproduction

Karl Illmensee (Greece)

Embryo splitting is safely and efficiently used for assisted reproduction in farm animals. In nonhuman primates embryo splitting has resulted in several pregnancies. Human embryo splitting has been reported recently with regard to ART programs. Microsurgical embryo twinning has been carried out to determine its efficiency for blastocyst development. The blastocysts were analysed at the DNA level for proof of monozygocity. Embryo splitting may be advantageous for providing additional embryos to be cryopreserved and for patients with low response to ovarian stimulation. Social, ethical issues and prognostic perspectives are outlined for human embryo twinning in reproductive medicine.

O-31 Protective effect of curcumin on spermatogenesis defects induced by dexamehasone

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Introduction: Exposure to glucocorticoids such as dexamethasone (Dex) leads to numerous changes in various biological systems including the reproductive system. The present study investigates the efficacy of curcumin (Cur), an active component of turmeric, to attenuate Dex-induced spetmatogenic defects in the mouse testicles.

Material and Methods: A total of 32 male mice were divided into four groups (8 mice each). The first group served as control and received corn oil only for 25 days. Mice of the second group received Dex at the dose of 7 mg/kg body weight by i.p. injection for 7 days. Mice of the third group received curcumin dissolved in corn oil at a dose of 200 ml/kg body weight. The fourth group received Cur at the dose of 200 mg/kg for 25 days and Dex at the same dose of the second group was injected during the last 7 (18 to 25) days. Testicular histopathology, morphometric analysis and immunohistochemistry assessments were performed for evaluation of the Dex and Cur effects on testicular germ cells. There was marked staining for bcl-2, an important antiapoptotic factor, expression with Cur+Dex compared with the Dex groups.

Results: Dex caused epithelial vacuolization, sloughing of germ cells, reduction of seminiferous tubule diameter, and significant maturation arrest ($P < 0.05$). Cur+Dex treatments showed significantly prevented these histopathologic changes ($P < 0.05$).

Conclusion: It is concluded that, curcumin may improve the adverse effects of Dex in the mouse testicular tissue by inducing anti-apoptotic mechanism.

Key words: Curcumin, Dexamethasone, Apoptosis, spermatogenic cells

Friday November 18, 2011

Room : Hall A

Session IX: Keynote Lectures

O-32 Preservation of fertility in young women

Jacques Donnez(Belgium)

Abstract not received

O-33 Recurrent IVF failures: The immunology theory

Antonis Makrigiannakis (Greece)

Implantation failure is rather a common event since only 73% of the concepted embryos are implanted into the endometrial cavity, and only 50% of them will end up as live births.

The immunology of RIF is complex. Cytokines and uterine Natural Killer cells are definitely involved. Additionally the extracellular matrix is also altered as this is described by MMP alterations. The role of inflammation is also crucial as the prostaglandin profile is also reported to be changed. In the frame of reproductive immunology, our group and others have demonstrated the immunomodulatory role of the CRH peptide during implantation and early pregnancy development. It has been shown that CRH is expressed in the implantation sites, and that CRH facilitates decidualization. Additionally we have shown that CRH facilitates maternal tolerance during implantation by inducing FasL expression upon the trophoblast surface, triggering in turn, Fas-expressing T cell apoptosis.

Recently, it has been reported that endometrial injury –as this is performed by a pipelle biopsy – one cycle before an IVF/ET, significantly increased the implantation, pregnancy and live birth rates in women who had one or more IVF failure. More over it has been shown that insertion of autologous peripheral blood monocytes (PBMC) along with HCG to the uterine cavity during the ET, significantly increased clinical pregnancy, implantation and live birth rates in patients with repeated failure of IVF/ET. By combining the knowledge on CRH and its association with a Th2 profile, and the reported effect of the PBMCs on IVF/ET efficacy, we investigated whether the intra-uterine administration of CRH-treated PBMCs during ET could increase IVF/ET in women with RIF. Our results indicate that such intervention significantly improves the implantation , the clinical pregnancy and the live birth rate, supporting a new clinical application in the field.

O-34 Managing the man's sperm in the lab. Pitfalls to avoid.

Fernando Sanchez(Spain)

The man's sperm has an evolutionary reason to be in the way that it is. We have a high number of sperm, and the majority of them anuseful, because we are not prepared, as a specie, to be monogamous, we are a polyandry and a poligynius specie. In the sperm there are different populations each one with each mission but all of them to help the best one to reach the egg and to block another man's sperm to fecundate. In the lab, classically, we consider the sperm as a hole and mix it in a different way than nature done. To overcome this limitation we propose a different way to manage the semen sample in the lab. First of all we need to reduce the period of abstinence to none (less than 24 hours) to diminish the DNA fragmentized sperm in the ejaculate, second we propose to separate the ejaculate in two fractions, and take to use only the first one of them because in this one we have the best spermatozoids in number and motility. Once in the lab we demonstrate that the DNA fragmentation increases quickly from the time of semen liquefaction so we must select the spermatozoa for microinjection in a short period of time. Also we must avoid the incubator because the exposition to a temperature of 36 grades centigrade increases the DNA fragmentation and the apoptosis of the spermatozoa. The last thing is to select the sperm with a high magnification microscope to select the best spermatozoa, doing a IMSI procedure.

O-35 Newer ovulation induction drugs and their role in fertility treatment

Robert F Casper MD

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Polycystic Ovary Syndrome (PCOS) is the most common cause of anovulatory infertility. Since many women with PCOS are obese and have insulin resistance, lifestyle changes and insulin sensitizers have been suggested as first line treatment. However, dropout rates in studies of diet, exercise and metformin treatment have been up to 60% to 70% and the effects lifestyle modifications on ovulation and pregnancy rates have therefore been limited. Clomiphene citrate (CC) was first introduced in the 1960s and remains the most commonly used oral agent for the induction of ovulation. It is a SERM that has predominant anti-estrogenic action resulting in long-lasting estrogen receptor (ER) depletion. Side effects include antiestrogenic effects systemically and on the endometrium and cervical mucous. Letrozole is a potent, non-steroidal, aromatase inhibitor, originally used for postmenopausal breast cancer therapy, at present its only registered indication. We hypothesized that letrozole could mimic the action of CC without depletion of estrogen receptors. Because there is no estrogen receptor antagonism, antiestrogenic effects such as poor cervical mucus and thin endometrium are not expected with aromatase inhibitor treatment. In addition, because estrogen receptors in the brain are not depleted, normal negative feedback occurs with letrozole and generally results in mono-ovulation.

We and others have demonstrated the success of aromatase inhibition in inducing ovulation in women with polycystic ovarian syndrome (PCOS). Letrozole may be very effective for ovulation induction and pregnancy in cases of CC resistance. When used together with FSH injections, letrozole resulted in a significant reduction in the FSH dose needed for controlled ovarian hyperstimulation. Aromatase inhibitors likely increase ovarian sensitivity to FSH, and may be useful in poor responders and in women undergoing ovarian stimulation for in vitro fertilization.

The safety of letrozole in pregnancy outcome studies has been demonstrated by examination of spontaneous pregnancy loss, multiple pregnancy rates and congenital anomalies compared to a control group of infertility patients treated with CC. In addition, new data suggests that CC may result in cardiac anomalies and other birth defects and in low birth weight babies. We believe aromatase inhibitors are acceptable alternatives to CC as first line oral agents for ovulation induction or controlled ovarian stimulation.

Key words: Polycystic ovary syndrome, PCOS, metformin, clomiphene citrate, letrozole, ovulation induction, birth defects.

Room : Hall A

Session X: PCOS

O-36 OVARIAN CONTROL OF LH SECRETION: NOVEL ASPECTS

Professor Ioannis E. Messinis, MD, PhD

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The feedback mechanisms are important determinants of the relationships between the ovaries and the hypothalamic-pituitary system. Estradiol during the follicular phase and progesterone during the luteal phase of the cycle are the ovarian mediators. Evidence has been provided that progesterone, although at low concentrations, plays a crucial role also during the follicular phase of the cycle, contributing to the control of LH secretion. During the luteal phase, the negative feedback mechanism is mediated by both estradiol and progesterone, while inhibin A plays a role in FSH secretion. It has been established that estradiol in the follicular phase sensitizes the pituitary gonadotrophs to GnRH, an effect that is augmented by the action of progesterone. This is the primary mechanism leading to the occurrence of the midcycle LH surge. Accumulated evidence has shown that, apart from steroids and inhibin, a novel non-steroidal substance produced by the ovaries, named gonadotrophin surge attenuating factor (GnSAF), plays a physiological role in the normal menstrual cycle. Studies in women have proposed that GnSAF is produced mostly during the luteal-follicular transition under the influence of the intercycle rise of FSH maintaining the pituitary in a state of low responsiveness to GnRH for the most part of the follicular phase. In the late follicular phase, GnSAF bioactivity declines, facilitating thus the stimulating action of estradiol on the pituitary and the full expression of the midcycle LH surge.

O-37 The role of Insulin Sensitizers in PCOS-best practices

Raja Sayegh, MD
USA

Accelerated urban development and changing lifestyles are colluding with underlying genetic susceptibility to produce a worldwide epidemic of insulin resistance (IR) and type 2 diabetes mellitus (T2DM). This phenomenon is more acute in the Middle East and North Africa (MENA) region which contains 6 of the 10 countries with the highest T2DM rates worldwide. Moreover, this epidemic is increasingly afflicting a younger demographic, including reproductive aged women where the prevalence of polycystic ovarian syndrome (PCOS) is now estimated at over 10%. In more than half the cases, IR is believed to be the root cause of PCOS, a complex condition associated with significant reproductive, metabolic and cosmetic consequences. Womens health providers and fertility experts are uniquely positioned to identify and manage this condition and prevent its long term consequences. Insulin sensitizers, especially Metformin, have emerged as versatile, effective and low cost tools in the management of the insulin resistant PCOS patient. By targeting the underlying pathophysiologic mechanisms of PCOS, Metformin may help complement the role of lifestyle modifications in reducing PCOS related morbidity and rate of progression to T2DM. Evidence based uses and limitations of Metformin in PCOS will be discussed.

O-38 Infertility treatment in PCOS

Professor Ioannis E. Messinis, MD, PhD
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Infertility treatment in the polycystic ovary syndrome (PCOS) involves either ovulation of superovulation induction. Ovulation induction provides the means for the treatment of anovulatory infertility. The first treatment choice is clomiphene citrate. With this drug, in properly selected patients, the cumulative pregnancy rate approaches that in normal women. Low-dose protocols of FSH, as a second-line treatment are effective in inducing monofollicular development. Laparoscopic ovarian drilling competes with FSH as a second choice in clomiphene resistant patients. However, in obese women with PCOS, weight loss and life-style changes should be recommended as first-line therapy. Other agents, such as aromatase inhibitors, have been considered “off label” for use in infertile women. Metformin, an insulin sensitizer, is inferior to clomiphene and is not widely recommended as first-line treatment. Superovulation induction is applied for IVF in case ovulation induction fails to treat anovulatory infertility.

O-39 Pregnancy outcomes in women with Polycystic Ovary Syndrome.

Ghina Ghazeeri, Anwar Nassar, Johnny Awwad

American University of Beirut Medical Center. Department of Obstetrics and Gynecology. Beirut, Lebanon.

Objective: To review the literature assessing pregnancy outcomes among women with polycystic ovary syndrome (PCOS).
***Design*:** Review of English language–published research using PubMed and MEDLINE databases.
***Results*:** The weight of the available evidence suggests that pregnant women with PCOS are at a higher risk of developing gestational diabetes (GDM) pregnancy-induced hypertension (PIH) and preeclampsia, pre-term birth or delivery and early pregnancy loss. Obesity is a contributing factor o the increased risk of GDM among this group of patients. Estimated from the statistically strong studies, GDM has been estimated to prevail in 5-40% of pregnant PCOS patients, PIH in 10-30%, preeclampsia in 8-15% and preterm birth in 6-15%. The association between PCOS and EPL may not be direct, wherein the presence of hyperinsulinemia, leading to hyperandrogenemia, has been implicated in the link. Other than metformin's role in improving the metabolic consequences accompanying PCOS, it has been shown to improve pregnancy rates in PCOS patients who are resistant to clomiphene-citrate.
Conclusion: This review of the literature suggests that pregnancy in PCOS does indeed confer multiple adverse risks, and whether it should be advised to administer metformin throughout all of the pregnancy still remains controversial. Further prospective studies that foster a larger number of participants and adjust for all potentially confounding factors are still needed.

O-40 Bariatric surgery and fertility outcome.

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American University of Beirut Medical Center. Department of Surgery. Beirut, Lebanon.

The purpose of this presentation is to review the recent literature on bariatric surgery and fertility. Fertility has been shown to be adversely influenced by obesity, and weight loss is associated with significant improvement in many parameters of reproductive function. Bariatric surgery is the most reliable way to achieve and sustain weight loss in the morbidly obese. Furthermore, the majority of female patients undergoing bariatric surgery are in their reproductive age. There is only a small number of studies published on reproductive outcome after bariatric surgery. Obesity adversely impacts fecundability and IVF outcomes through a variety of mechanisms. Bariatric surgery has been shown to improve menstrual cyclicity in anovulatory women, but little is published on the impact of surgical weight loss on spontaneous or IVF-treatment-related pregnancy rates. Few data exist regarding IVF in women who have undergone bariatric surgery, but studies suggest that IVF is a safe and effective fertility treatment for these women. Special considerations, though, should be made when treating patients who have undergone bariatric surgery. The increased risk of miscarriage in obese women may decline after bariatric surgery. There are currently

insufficient data to support recommendations regarding the ideal timing for pregnancy after bariatric surgery.

Room : Hall B

Session XI: Reproductive Surgery

O-41 THE POSSIBLE EFFECT OF Hydrosalpinx fluid HUMAN EMBRYOS

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It is well known that the success of artificial reproductive techniques, especially IVF, for patients with tubal pathologies such as hydrosalpinx is reduced by half compared with patients without hydrosalpinx. Notably, there are also substantial increases in both early pregnancy loss and ectopic pregnancies. Alterations in the outcome of these patients generally reflect a detrimental effect of hydrosalpinx. However, although many theories have been published, a single explanation has not yet been found over a period of decades. Therefore, the negative effects of hydrosalpinx have generally been attributed largely to: (i) mechanical effects; (ii) embryo and gametotoxicity; (iii) alterations in endometrial receptivity markers; or dwindled cross talk between embryo-endometrium resulting in hindered implantation, and (iv) direct effect on endometrium, leading to intrauterine fluid formation. A low pregnancy rate (10%) after in-vitro fertilization (IVF) in hydrosalpinx patients and a relatively high incidence (50%) of abortions during the first trimester suggested that leakage of this fluid into the uterine cavity may exert a cytotoxic effect on the developing embryo.

The negative impact of HS on IVF-ET could be supported by the consistency of data from retrospective studies an meta-analyses.
A pleiad of theories exists to justify the deleterious impact of HS on IVF outcome.
The theories of the presence of embryotoxic factor in HS was initially supported by mouse studies, but was not confirmed subsequently in human embryo studies.

Cytokines and growth factors are normal components of tubal fluid and are important for embryo development and implantation.
Distortion of the balance between the concentrations of different embryotoxic and embryotrophic cytokines can negatively affect reproductive system with consequent impairment on implantation rate.
Differences in the presence of cytokines among different HF samples.
Low concentration levels or even the absence of cytokines and growth factors and especially of EGF in culture medium with HF may serve as an assay that could predict IVF outcome.
Mouse embryo assays of HF may potentially serve as a predictor of subsequent IVF outcome in women with HS and the technique of aspiration of HF for analysis may be useful in the selection of appropriate treatment option for patients with HS undergoing.

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2. Barmat L et al., Fertil Steril 1999; 72: 1110-12
3.Strandell A et al., J Assist Reprod Gen; 21: 241-246

O-42 An update in myomectomy for infertile patients: Robotic, laparoscopic or abdominal?

Prof. Dr. Cihat ÜNLÜ
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Abstract not received

O-43 Robotic Surgery: Usefulness and cost effectiveness

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The finance of health care has been in the center of all medical and political debates in recent years. Innovation and technology in medicine comes with increased costs that cannot be overlooked. The use of Robotic assistance in laparoscopic surgery in a multitude of specialties is an example.

The adoption of the daVinci® Robotic platform has grown exponentially since its FDA approval in 2005 for general laparoscopic surgery. The number of procedures performed worldwide tripled from 80,000 in 2007 to 250,000 in 2009. This is a result of a combination of factors ranging from increased patient demand for minimally invasive surgeries, a rigorous marketing campaign, manufacturers strategy and surgeon's eagerness. Esthetic considerations and improved surgical parameters (decreased blood loss, length of stay and use of pain medications) are features of both laparoscopic and robotic surgeries. Improved dexterity, reduced tremors, "intuitive" control, enhanced visualization, and a short learning curve are some of the mentioned ergonomic advantages of the robotic assistance.

However, like in any other new technology, the cost effectiveness and efficiency of this system has to be evaluated. Some fail the test of time and others survive and become standard of care. Demonstrating a clear clinical benefit for this technology would justify costs and would determine the future of this innovation.

O-44 How could we provide lease ovarian damage and most ovarian reserve in endometrioma excision?

Prof. Dr. Cihat ÜNLÜ
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Abstract not received

O-45 Rectovaginal deep endometriosis: a challenge for the gynecologist

Jacques Donnez (Belgium)

Abstract not received

Room: Hall A

Session XII: Endoscopy

O-46 Hysteroscopy challenges in management of Infertility

Osama Shawki(Egypt)

Abstract not received

O-47 Hysteroscopic Metroplasty for Congenital Uterine Malformations: Reproductive and Obstetrical Outcomes.

Mustapha CHAABAN M.D., Abdelwahab Elaly M.D.

CBLI, Tripoli-Lebanon.

Congenital uterine malformations may hinder fertility in women. Poor reproductive and obstetrical outcomes have been associated with the DES-exposed and septate uterus. Hysteroscopic metroplasty is a surgical intervention aimed at restoring normal uterine anatomy in order to improve obstetrical outcome. While hysteroscopic septoplasty has been acknowledged as an effective procedure in reducing the risks of recurrent miscarriages associated with the septate uterus, its value in improving pregnancy rates is still debatable. Enlargement hysteroplastic metroplasty for the treatment of uterine hypotrophy or dysmorphism is not yet a common trend in reproductive surgery, due to the paucity of evidence in favor of a clear benefit. Some data nonetheless, suggest a positive impact on the obstetrical outcome of DES-exposed women. We present our data utilizing enlargement metroplasty to improve the reproductive and obstetrical outcomes of women with congenital uterine malformations.

O-48 Surgery and uterine adenomyosis

Stephan Gordts(Belgium)

Abstract not received

Room :Hall B

Session XIII: Infertility

O-49 Hirsutism: A Management algorithm

Raja Sayegh, MD, USA

Hirsutism can be a source of significant psychological and emotional distress for the modern woman. It may also be an indicator of androgen excess and underlying endocrine and metabolic pathologies which could have long term reproductive and cardiovascular consequences. While Polycystic ovarian syndrome (PCOS) and Idiopathic Hirsutism (IH) remain the most common causes of hirsutism worldwide, late onset non-classical congenital adrenal hyperplasia is an important cause of hirsutism in the Middle East and North Africa (MENA) region. Options and algorithms for testing and treatment of the hirsute patient will be discussed, along with important diagnostic and therapeutic considerations in adolescents, reproductive years and the postmenopausal age group.

O-50 Prevalence and Determinants of Complementary and Alternative Medicine use among Infertile Patients in Lebanon

Ghina S. Ghazeeri, MD, Johnny T. Awwad, MD, Mohamad Alameddine, PhD, Zeina M.H. Younes, MSc, Farah Naja, PhD.

Department of Obstetrics and Gynecology. Department of Nutrition and Food Sciences. Department of Health Management and Policy. American University of Beirut Medical Center. Beirut, Lebanon.

Background: Recent evidence suggests that patients with infertility are increasingly using Complementary and Alternative medicine (CAM) for treatment. Little is known about the prevalence, types and mode of CAM use in the Arab world.

Objective(s): To examine the frequency, types, modes and reasons of CAM use among infertility patients in Lebanon.

Design and setting(s): In a face-to-face interview, 213 consecutive patients attending the Assisted Reproductive Unit at the American University Medical Center in Beirut were surveyed using a questionnaire comprised of three sections: socio-demographic and lifestyle characteristics, infertility-related aspects and information on CAM use.

Outcome measure(s): The use of CAM modalities for infertility treatment.

Results: Overall, 41% of patients reported having used a CAM modality at least once for their infertility. The most common types of CAM therapies used were functional foods (82.9%) in males and spiritual healing/prayer (56.5%) in females. Factors negatively associated with CAM use were higher household income (OR: 0.305, 95% CI: 0.132-0.703) and female sex (OR: 0.12, 95% CI: 0.051-0.278). The older patients were diagnosed with infertility, the lower the odds of CAM use (p for trend <0.05). Almost half of the participants (48%) were advised on CAM use by their friends, and only 13% reported CAM use to their physician.

Conclusion(s): The use of CAM modalities among Lebanese infertile patients is considerably high. With the low rate of CAM use disclosure, physicians need to become aware that their patients may be using CAM and also increase their knowledge and understanding of these treatments.

O-51 The effect of vaginal progesterone on the prevention of preterm labor in IVF/ICSI pregnancies.

Mona Aboulghar MD
Professor Obstetrics and Gynecology
Fetal Medicine unit Cairo University
IVF Consultant Egyptian IVF center -Maadi Cairo

Objective: To evaluate the effect of vaginal progesterone on the prevention of preterm labor inIVF/ICSI pregnancies.

Study design: A single center prospective placebo controlled randomized study. Subjects and methods: we randomized 313 IVF/ICSI pregnant patients, into daily 400 mg vaginal progesterone versus placebo, starting from mid trimester up to 37 weeks or delivery, including 219 singleton and 91 twin pregnancies.
Results: there was no significant difference in patients' characteristics between both groups. There was no significant difference in risk of preterm labor among all patients OR 95% (CI 0.672 (0.42-1.0). There was a significant lower preterm labor in singleton pregnancy in the progesterone arm (OR 95% CI 0.53 (0.28 – 0.97) and no significant difference between both arms in twin pregnancy (OR 95% CI 0.735 (0.36 – 2).
Conclusion: Administration of 400 mg vaginal progesterone from mid trimester reduces the incidence of preterm labor n singleton but not in twin IVF/ICSI pregnancies.
Keywords: preterm labor, vaginal progesterone, IVF/ICSI, singleton pregnancy, twin pregnancy.

Room : Hall C
Session XIV: Ovarian Stimulation

O-52 The Effects of heavy metal pollution of male infertility

Carol Sukhn, Ghazi Zaatari, Johnny Awwad.
American University of Beirut Medical Center; Department of Pathology and Laboratory Medicine and Department of Obstetrics and Gynecology.

In Lebanon, the levels of lead, cadmium and other heavy metals have increased tremendously in recent years due to war activities and emerging building industry. Particularly, lead and cadmium intoxication have been implicated in infertility of male

etiologies. These potential environmental hazards were evaluated during a clinical assessment of male fertility disorders at the Medical Center of the American University of Beirut. A detailed history of occupational and environmental practices was collected from men exposed or unexposed to heavy metals. This was done to assess exposure to these reproductive toxicants in men and to identify or confirm potential reproductive risks. Semen and blood were collected from both fertile and infertile men and analysed for heavy metal levels. Correlations were drawn between levels in blood and semen as well as in total heavy metal load. There is a strong correlation between the lifestyle and the total metal accumulated. Among the metals, arsenic and mercury semen levels most highly correlate with lifestyle. Interestingly, the semen levels of only these two metals differ between fertile and infertile men, being higher in the latter. Correlations were used to assess relationship between frequency of miscarriage and metal burden.

O-53 Reproductive outcome in women with idiopathic premature ovarian failure: Is there a best ovarian stimulation protocol?

Johnny T. Awwad, Ghina Chami, Ghina Ghazeeri, Anwar Nassar, Antoine Abu-Musa, Michel Abou-Abdallah, Chantal G. Farra.

American University of Beirut Medical Center. Division of Reproductive Endocrinology and Infertility. Medical Genetics Unit. Beirut, Lebanon.

Fertility management of women with premature ovarian failure (POF) has been largely disappointing, despite reports on the success of modified ovulation induction protocols. In this prospective, controlled, sequential crossover longitudinal study, women with idiopathic karyotypically normal POF were initially placed on three consecutive control cycles (phase I) consisting of estrogen progestin sequential therapy, followed by three consecutive treatment cycles (phaseII) consisting of gonadotropin ovarian stimulation after estrogen priming, gonadotropin-releasing hormone agonist pituitary desensitization, and corticosteroid immuno-suppression. The purpose was to (1) evaluate ovarian reproductive function and (2) assess the psychological impact (Hospital Anxiety and Depression Scale) of the treatment in 60 women with POF... Following enrollment of ten subjects, the study was discontinued. Ovulation rates in phase II (0/10;0%) did not differ from Phase I (0/10;0%). Anxiety and depression scores increased significantly from baseline following three treatment cycles (4.5±1.65 vs 11.6±1.51 and 1.9±2.18 vs 8.8±1.3, respectively; $p<0.001$). The combination of estrogen priming, corticosteroid immunosuppresion, gonadotropin-releasing hormone agonist pituitary desensitization followed by gonadotropin ovarian stimulation was deemed ineffective in restoring ovarian function in women with idiopathic POF. It was further found to be associated with an excessive psychological burden in these women. Women with POF should be cautioned against the potentially harmful aspect of similar treatments of unproven benefit.

O-54 The use of recombinant human Luteinizing Hormone (rhLH) in a split dose approach to support recombinant human Follicle Stimulating Hormone (rhFSH) induced follicular development in hypogonadotropic hypogonadal (HH) women.

Michel Abou Abdallah, Frederic Mitri, Chantal Farra, Mona Abou Jaoudeh, Johnny Awwad.
Division of Endocrinology, Rizk Hospital. Department of Obstetrics and Gynecology, American University of Beirut Medical Center, Beirut, Lebanon.

Women with HH do not have the threshold levels of endogenous LH required to achieve optimal follicular development and steroidogenesis during therapy with FSH alone. The use of FSH alone for follicular stimulation in this population was found to be associated with decreased ovulation, poor luteinization, and low fertilization. The single rhLH dose finding study in HH women available in the literature demonstrated that 75 IU was the minimal effective daily dose of rhLH necessary to support rhFSH-induced follicular development. Because a split dose approach may achieve more physiologic serum levels than the single dose, this study sought to investigate whether a split dose protocol of rhLH is more efficacious in supporting follicular development and related events than the single dose protocol in women with HH receiving rhFSH/ rhLH.

This study was a prospective clinical comparative trial. Ten women with HH fulfilled the inclusion criteria, and were allocated to the split dose protocol. They received a total daily dose of 150 IU of rhFSH (Gonal-F, Ares-Serono) and 75 IU of rhLH (Lhadi, Ares-Serono) subcutaneously in four divided doses over one treatment cycle for a maximum of 20 days. The control group received the same rhFSH/rhLH combination dose of 2:1 via a single dose administration approach. Follicular development was considered optimal when the following three efficacy end points were met: (a) at least one follicle $\geq$ 17 mm in diameter, (b) preovulatory serum estradiol level $\geq$ 400 pmol/L, and (c) a midluteal progesterone level $\geq$ 25 nmol/L.

The mean age of women in the study group was 29.7 years (range, 23.0-38.0), and the mean body mass index (BMI) was 23.3 kg/m^2 (range, 18.5-28.7). The serum estradiol per follicle was 570.5$\pm$127.7 pmol/L, and a multifollicular response was observed in 83.3% of responders. The endometrial thickness measured 9.2$\pm$2.6 mm on the day of hCG. The proportion of women in the study group who fulfilled all three efficacy end points was comparable to the control group (60.0% vs 66.7%; $P > 0.05$). Women who received the split dose protocol had a trend for higher cycle ovulation rates. The pregnancy rates per cycle in women interested in conception in both groups were similar.

Our findings showed that 75 IU of rhLH given daily in four divided doses to LH- and FSH-deficient HH women undergoing rhFSH follicular stimulation, were effective in supporting optimal ovarian steroidogenesis, folliculogenesis, endometrial growth, and follicular luteinization after hCG. The split dose protocol was found to be at best equivalent to the single dose protocol with respect to cycle ovulation rates and pregnancy rates.

Room : Hall A

Session XV: Endoscopy

O-55 Endometriosis (an enigma)

Osama Shawki(Egypt)

Abstract not received

O-56 Transvaginal laparoscopy and ovarian drilling for PCOS

Stephan Gordts(Belgium)

Abstract not received

O-57 Abuse of Ovarian drilling for PCOD :Flirting with complications

Osama Shawki (Egypt)

Abstract not received

Room : Hall B

Session XVI: Cryobiology

O-58 Study of Developmental Capacity of Vitrified Mouse Blastocysts after Transfer to Mouse Pseudo Pregnant

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Vitrification is the commonly used method for long-term storage of pre-implantation mammalian embryos. It is an essential part of assisted reproductive technologies. The re-expansion rate, pregnancy and birth rate of vitrified blastocysts using CPS were compared with OPS and Conventional Straw. Female NMRI mice were injected with Gonadotrophins in order induce them for super ovulation. At that time the mice were sacrified by cervical dislocation and dissected of mouse abdomen. The uterine horns were existed blastocysts were collected in PBS and randomly allocated to four groups: vitrification in CPS, conventional straw, OPS and untreated controls. The vitrification solution was EFS40%. After storage for 1 month in liquid nitrogen, the blastocysts were thawed in 0.5 M sucrose for in vitro culture in M16 medium. After 6 h of culture, the numbers of expanded blastocysts was recorded and ready for transfer to uterus of pseudo pregnant mouse. The re-expansion rate of the CPS group (72.1%) was significantly higher ($p<0.05$) than OPS (52.55) and C.S. (38.6%) groups. The pregnancy (70%) and birth rate (45%) of blastocysts in CPS were similar to those of fresh blastocysts (80% and 45.5%) and the pregnancy (10%) and birth rate (5.1%) in Conventional Straws lower than OPS (20 and 7.5%), but were not significantly different. Mouse blastocysts vitrified using CPS had a better result compared with OPS and

Conventional Straw. The value of CPS for vitrification of blastocysts may also merit investigation.

O-59 Expression Profiles of Apoptotic Genes following Cumulus Oocyte Complexes Vitrification.

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Introduction: Our aim was to compare the expression rate of apoptotic genes of sheep cumulus-oocyte complexes (COCs) following vitrification by conventional straw, cryotop and solid surface methods.

Methods &Materials: COCs were harvested from slaughtered sheep ovaries and divided into four groups: Control, Conventional straw Vitrification, Cryotop Vitrification and Solid Surface Vitrification. In control group, fresh COCs were immediately transferred to the maturation medium. In vitrification groups, good quality vitrified-warmed COCs were matured in vitro as like as the control group. After viability assessment and nuclear stage determination, oocytes were subjected for evaluation of apoptotic genes (C-myc, Bax, Bcl2, P53 & Caspase3) expression by Real-Time quantitative RT-PCR.

Results: Cryotop vitrification had higher percent of healthy COCs after warming (83.84%) and showed a significant difference with conventional straw vitrification. Compared to the other vitrification groups, cryotop group showed the highest rate of mature oocytes (48.81%). Control group indicated a significant difference with conventional straw and solid surface groups in the expression of Bcl2 and C-myc genes. Also, the expression of C-myc was significantly different between cryotop and conventional straw groups. Bax and P53 expression were evaluated too but no significant differences were observed.

Conclusion: According to the less success of immature sheep oocytes cryopreservation, it seems that vitrification by cryotop can reduce oocyte cryoinjuries and increase the viability, post-thaw quality and maturation rate of COCs. This kind of vitrification causes more expression of anti-apoptotic Bcl2 gene in comparison with other vitrification groups.
Key words: Vitrification; Cryotop; Apoptotic Genes; Sheep; Immature Oocyte.

O-60 Effects of Methyl-Beta-Cyclodextrin and Cholesterol on Cryosurvival of Spermatozoa from C57BL/6 Mouse

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MBCD and Cholesterol-Loaded-Cyclodextrin (CLC) were examined for their abilities to increase the cryosurvival of C57BL/6 mouse sperm, the main strain of genetically engineered mice. The intactness of acrosome and motility of frozen/thawed spermatozoa were used to monitor cryosurvival. In this experimental study, male mice were randomly divided in 6 groups: control 1, experimental 1, experimental 2, control 2, experimental 3 and experimental 4. In experimental groups 1 and 2 spermatozoa were exposed to 0.75 and 1 mM MBCD and in experimental groups 3 and 4 were exposed to two different concentrations of CLC (1 and 2 mg mL^{-1}) over a period of 1 h and were subsequently cryopreserved. Spermatozoa in control 1 group were frozen without any exposure to CLC or MBCD and in control 2 (vehicle), sperms were incubated with 4 mM MBCD. The post-thaw sperms were evaluated for their motility and acrosomal status. The values of the intact acrosome and motility increased significantly with concentration of CLC compared to controls and MBCD experimental groups ($p<0.05$). These results indicate that cryosurvival of C57BL/6 mouse spermatozoa is enhanced by exposure to MBCD which loaded with cholesterol (CLC) before freezing and MBCD alone can not protect sperm from freeze-thaw damage efficiently compare to CLC.

Room : Hall C

Session XVII: Reproduction (Hall C)

O-61 The effect of verapamil on oxidative stress in mouse ovarian heterotopic transplantation

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Introduction: One of the most importance challenges in ovarian graft transplantation is overcoming the Ischaemia/Reperfusion injury (IRI) that induces a high rate of follicular loss and disordered follicular activation. Thus strategies are needed to minimize the ischemic injury by using protective agents such as antioxidants, anti-apoptotic agents or several angiogenic factors. Hence, verapamil as calcium channel blocker and antioxidant might protect tissues against oxidative stress damage.
The aim of this study was to examine the effect of verapamil on oxidative stress level in ischaemia/reperfusion situation and follicular count in autograft ovarian tissue heterothopic transplantation in mice.

Material and Methods: female NMRI mice (age between 28 days) were randomly assigned either as control (Group 1) or treated (Groups 2,3). in Group 2 only ovarian tissue transplantation was performed and received daily intraperitoneal (i.p.) injections of physiological saline, . In group 3, Verapamil (3 mg/kg) was given interaperitoneally 1 hour before remove ovarian tissue and autotransplantation to the back muscle and subsequently was injected daily for 14 days after transplantation. ovaries from the same mice were selected randomly for the control group without any manipulation. At 14 days after transplantation, ovarian grafts recovered and processed histologically for follicle number counting. On the other hand, level of lipid peroxidation was investigated by measurement malondialdehyde concentrations in different groups with a spectrophotometry assay.

Results: These finding were indicated the better preservation in follicular counts in transplanted ovaries in treatment groups with verapamil than only transplanted group and control group ($P < 0.05$), Moreover, in the present study MDA levels were found to correlate with histological findings in different groups.

Conclusion: these results to be related to the ability of verapamil to block calcium channel and reduc reactive oxygen species generation, thereby protecting the cell against I–R injury.

O-62 Assessment of morphological and functional changes in neonate vitrified testis grafts after host treatment with melatonin

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This study was conducted to assess the effect of melatonin on the structure of testis and spermatogenesis dynamics in neonate vitrified testis grafts. Neonate vitrified testes, candidates for transplantation heterotopically to experiment or control groups, were warmed in thawing media which had or did not have a supplement of 100 µM melatonin, respectively. Following transplantation, melatonin (20 mg/kg/day) or saline solution was intraperitoneally injected into the treated and the non-treated groups, respectively. The initiating spermatogenesis, spermatogonia survival, and structure of tissue in the testis graft were examined. Cell apoptosis

(TUNEL assay) and proliferation (Brdu assay) in germ cells were determined.

Histological studies revealed the dynamic of the spermatogenesis process in the vitrified testis graft. However, dilation of the lumen accompanied by a disorganized epithelium in the non-treated group was higher than in the treated group. Furthermore, the proportion of apoptotic germ cells together with a reduced proportion of proliferated germ cells was higher in the non-treated group than in the treated group.

Overall, the number of seminiferous tubules in the testes grafts of both groups remained steady. However, the non-treated testes grafts contained more damaged seminiferous tubules than the treated ones. The thickness of the seminiferous tubules was greater in the melatonin treated group than in the non-treated group. In fact, the thickness of germinal epithelium was significantly higher in the treated group than in the non-treated group. The study may show a positive effect from melatonin resulting in more grafts restoring puberty.

Furthermore, the associated increase in the healthy number of seminiferous tubules suggests that melatonin may have a preventative ischaemia/antioxidant role and in fact may be useful to initiate the spermatogenesis process.

O-63 Diagnostic accuracy of 3D- sonohysterography in the detection of intracavitary abnormalities in infertile patients

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Objective: To evaluate the diagnostic accuracy of sonohysterography in the detection of intrauterine structural pathology infertile patients and comparing the results with hysteroscopy as the golden standard.

Method and Material(s): A total number of 80 infertile patients with a mean age of 31.78 years (range 23-44) underwent sonohysterographic assessment by 3DXI method followed by hysteroscopy. Sonohysterography was performed in the cycle day of 8-11. Sensitivity and specificity of 3D-SHG was compared with those of hysteroscopy.

Results: Sonohysterography had the same diagnostic accuracy in 73 out of 80 cases (91.3%). Sonohysterography had disagreement with four out of 38 (10%) acquired intrauterine lesions and only one out of seven (14%) intrauterine abnormalities from congenital origin.

Conclusion: Sonohysterography is a cost-effective and non-invasive method for diagnosis of intra-uterine lesions; it can be a proper alternative for diagnostic hysteroscopy by saving the procedure more accurately.

Poster Presentations

Alternative Medicine

P-01 Heart Centred Therapy:The effect of spiritual psychotherapy and life style on rate of pregnancy:a randomise clinical trial

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Introduction: The recognition of the distressing character of infertility diagnosis and treatment has led to the development of several psychosocial interventions for infertile couples.

Method: This study is randomize clinical trial .The study population included all infertile couples that visited maternity and gynecology Clinic,Jahrom University stimately 800 .Sampling was from 65 people that randomly divided into two groups of experimental (33)and control Groups(32). Experiment group received spiritual group psychotherapy 12 session, 2 hour weekly for 3 mounth.Also they trained about change in lifestyle by specialist. Data gattering were from Penn State Worry Questionnaire (PSWQ) .Data analysis by descriptive and analytic statistics in SPPSS 16 software.

Results: Psychological intervention in the treatment group significantly decreased the Penn State Worry Questionnaire,p=(0.004) .

Differences mean score of the Penn State Worry Questionnaire (PSWQ) in two groups were significant after intervention by ANCOVA test (**p=0.009**) .Other result showed that this approach increases rate of pregnancy, after 6 mouth fallow up , there were 4 pregnant in experiment group , but there wasn't anybody pregnant in control group.

Conclusions: Psychological interventions to increase reproductive and infertility treatment success is related to stress reduction and treatment of psychiatric disorders (worry and Perceived stress) .This approach tends to improve the infertile adjustment to their problem . Thus, it can be concluded that psychological intervention prior to infertility treatment was useful in infertile couples.

Key word: *Spritual group psychotherapy, Psychological Distress, mental health , Infertile women, Rate of pregnancy*

P-02 Look out for the secret wound:the effect of e- cognitive group therapy with emotional disclosure on infertile mental health

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Background: Considering the high prevalence of psychiatric disorders among infertile women, it seems that gynecologists, psychiatrists and psychologists should be more attentive to identify and treat these disorders. The aim of the study is to determine whether of E- cognitive group therapy with emotional disclosure on mental health of infertile women who receiving assisted reproduction

Method: 80 consecutive infertile women included in hormonal therapy or other ART and who participant have including criteria were randomly allocated either to receive Cognitive-Behavioral Treatment (CBT Group) or (Observation Group).Treatment group received 12 meeting hour weekly for a period of 3 months, as a weekly meeting. Treatment group also have some session about painting (art therapy), written and verbal emotional disclosure individual and group presentation. For gathering data was used the DASS Test and Pen worry state of inventory.
Result: Result showed that level of psychological distress decreased in control group, but none of them were not significant. Psychological intervention in the treatment group significantly decreased level of psychological distress; mean score of DASS in all aspects was significant. Differences between mean score of two groups after intervention was significant ($p<0.001$) and ANCOVA ($p=0/002$). Differences between mean score of two groups in pen worry state of inventory was significant($p=0.001$ and ANCOVA($p=0.009$).

Conclusions: These finding suggest that CBT with emotional self disclosure was promote the coping strategies among infertile women also result showed that these approach develop mental health and decreased level of stress in infertile women . It is not worthy to note that using psychiatric approach in medical settings to help the infertile women to promote adjustment in infertility.

Key words: Assisted reproductive therapy RT; Cognitive behavioral therapy; Psychological distress, stress; & Infertile women.

Andrology

P-03 Enzymatic digestion improves testicular sperm retrieval in non-obstructive azoospermia patients

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Introduction: In non-obstructive azoospermia (NOA) patients, besides the mechanical treatment, vital spermatozoa from the tissue obtained from testes by biopsy can be enzymatically prepared. The objective from this research is to increase the sperm recovery success of testicular sperm extraction (TESE), with enzymatic digestion if obtain no sperm from testis tissue by mechanical method.
Materials and methods: In 150 men who presented with clinical and laboratory data indicating NOA, tissue samples were obtained by microdissection TESE method. Initially, mature spermatozoa were searched for by mechanical extraction technique shredding the biopsy fractions. In cases with no spermatozoa was observed after maximum 30 min of initial searching under the inverted microscope, the procedure was then followed by enzymatic digestion using DNaseI and collagenase type IV. Surgery type, pathology, AZF, karyotype and hormones were compared in patients.
Results: Of 150 cases with NOA, conventional mincing method extended with enzymatic treatment yielded successful sperm recovery in 13 (10%). Surgery type, pathology, AZF, karyotype and hormone compared in two groups that response negative and positive to enzymatic digestion. Comparison of parameters revealed that level of FSH, LH, Testosterone and prolactin were significantly different (p<0/05) between two groups.
Conclusion: Combination of conventional TESE and enzymatic digestion is an effective method to recover spermatozoa suitable for ICSI. The benefit of the mincing combined with enzyme to sperm retrieval for NOA is firstly to shorten the mechanical searching time, thus minimizing further cellular damage as well as exposure to external conditions, and secondly to reduce the number of cases with sperm recovery failures.
Keywords: TESE, Enzymatic digestion, Non-obstructive azoospermia

P-04 Relationship between exogenous leptin and oxidative stress in adult rat

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Introduction: Previous studies have shown that the percentage of abnormal sperm in the leptin-treated animals was slightly higher when compared with their age-matched controls. Oxidative stress could play a critical role in the induction of sperm abnormalities.
Methods: This study assessed the effect of exogenous leptin on the production of ROS in 55 adult Sprague-Dawley rats. The rats were divided into 3 groups and daily intraperitoneal injections of 5, 10 and 30 mg/kg of leptin were administered for duration of 7, 15 and 42 days. Samples from the rat epididymis were treated with DCFH-A and analyzed using

flowcytometry. Samples were also prepared for tissues tests. The results were analyzed using SPSS and 2-way ANOVA with factors dose and time was administered. P-value<0.05 was considered significant.

Result: ROS levels were compared between groups in Flowcytometry assay, the interaction effect of factors dose and time was significant (p<0.05).The difference between dose 30 with dose 10 in day 7 was significant (p<0.05). Also these doses had significant differences with dose 5 and control (p<0.01).the ROS percent in doses 10 and 30 was significantly reduced in day 42(p<0.05). Evaluation of tissue showed increase of leptin receptor on 15th day and reduction on 42th day of injection.

Conclusions: It seems that exogenous leptin caused an increase in ROS percentage. Up to day 15 the increase of leptin concentration along with the increase of FSH and estrogen concentration stimulated spermatogenesis. But a decrease in the concentration of estrogen from day 15 to 42 due to negative feedback resulted in a decrease of ROS and consequently damage to sperm. Evalution of the tissue also showed that in groups receiving 15 days of treatment a higher expression of leptin receptors was observed which is in approval of the higher levels of Flowcytometry in these groups.

P- 05 Expression levels of Septins 4 and 12 in testes of patients with normal spermatogenesis and spermatogenic failure

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Introduction: Septins are an evolutionary conserved group of GTP-binding proteins. They polymerize to form filamentous structures and have diverse cellular roles. Septins are the major constituents of the annulus, a submembranous ring that separates the middle and principal pieces of the mammalian spermatozoa. An increasing body of data implicates the septin family in the pathogenesis of diverse states including neoplasia, neurodegenerative conditions, sporadic breast cancer, Parkinson and infertility. In this study we evaluate the expression pattern of Septin 12 and Septin 4 in testis tissue of men with and without spermatogenic failure.

Materials and Methods: The samples retrieved from patients who underwent diagnostic testicular biopsy in Royan institute. 10 patients with obstructive azoospermia and normal spermatogenesis and 20 patients with non-obstructive azoospermia were recruited for real-time reverse transcription (RT)-PCR analysis of the testicular tissue. Total RNA was extracted with trizol reagent. Septin expression level was normalized to expression of the housekeeping gene.

Results: Comparison of the level of Septin RNA revealed that in tissues with partial (n=10) or complete spermatogenesis (n=10), the expression of septin 12 and septin 4 were significantly higher than Sertoli cell only (SCO) tissues.

Conclusions: The testicular tissues of men with hypospermatogenesis, maturation arrest and Sertoli cell only had lower levels of Septin 12 and Septin 4 transcripts than normal men. This data indicates that Septins expression levels are critical for human spermatogenesis.
Keywords: Andrology/male infertility/Septin

P -06 Jobs and male infertility

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Introduction: Recently, many studies have found a decrease in semen quality which has increased the focus on male reproductive health. The occupational factors which have evidence of an association with male infertility include heat, radiation, chemicals and trauma. The aim of this research is detection of association of job and male infertility.
Material and method: This prospective clinical study was performed on 106 infertile couples that referred to Dr. Rasekh's clinic during 18 months. The patients had two semen analyses at least. Semen samples were collected by masturbation directly into a clean container after an abstinence period of 2 to 3 days. Questionnaires were prepared for patients which was registered last parameter of semen analysis, job, and occupational contacts. The patients were inserted in different groups due to exposure or no exposure to materials. The study population consisted of 106 consecutive male patients attending an infertility clinic. Average age was 33 years. 64 (60.3 %) patients had abnormal semen analysis, according to WHO, 2000 guidelines. The patients were inserted in different groups due to exposure or no exposure to materials. Exposure groups include 39 (36.4 %)patients: 18(16.9%)drivers, 12(11.3%) agriculturists, 3(2.8%) welders, 3(2.8%) bakers, 1(0.9%)car planisher, 2(1.8%)coalmen that was decreased in sperm count 26 (24.5 %), ↓ motility 24(22.6%), abnormal morphology16(15.09%). unexposure groups include 25(23.5%)patients: 9(8.4%) workers, 7(6.6%) employees, 5(4.7%) teachers, 2(1.8%) barbers, and 2 (1.8%) policemen that was decreased in sperm count 15 (14.15 %), ↓ motility 14 (13.2 %), abnormal morphology12 (11.3 %).
Results: Abnormal semen analysis was detected in occupational groups include exposure or no exposure to materials. The most impairment of semen analysis in exposure groups was in agriculturists due to impact to pesticides and then in order to drivers,welder,baker, coalman,car planisher (impact to heat, solvents) in semen quality. But, it is interesting witch unexposed groups (worker, teacher, employee, barber, policeman) were damaged in semen parameters that may be due to special position witch induced heat. The most disorders of semen analysis were in count and the next , motility in exposure groups but in unexposure groups were disorder in motility index . Abnormal semen parameter is twofold in exposure patients than unexposure's.
Conclusion: Expanding knowledge about materials and exposures that could adversely affect male fertility has great importance in maintaining a workers' health, his family life, and the health of his progeny. As such, protecting workers from exposures that could impact their fertility will generally protect them from other negative health effects, which could

ultimately result from such exposures .Therefore, it may be prevented of semen disorders with avoiding to exposure of toxic materials before medical treatment.

Keys words: job, infertility, sperm parameter

P-07 Male Body Mass Index and Sperm Parameters

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Background: It is known that body mass index (BMI) correlate with female fertility; however, little information is available on the effect of BMI on male fertility or sperm parameters. Because of increasing epidemic this study was done to evaluate the association between obesity and overweight and sperm parameter in couples presenting for evaluation of infertility.

Material and Methods: We analyzed data on sperm samples from 375 men who were grouped based upon calculated BMI values (normal, 20-24 kg/m^2; overweight, 25-30 kg/m^2; obese, > 30 kg/m^2). The data collected included patient height and weight, sperm concentration, percent sperm motility, percent of normal sperm morphology, and percent of ejaculate volum. Data were analyzed by Chi-Square and Fisher tests

Results: There were not significant difference in the prevalence of oligozoospermia (P=0.720), low progressively motile (P=0.051), having abnormal morphology (P=0.368), low ejaculate volume (P=0.180) among the three BMI.

Conclusions: Our study does not corroborate reports of detrimental effects of Obesity alone on sperm parameters.

P-08 Evaluation of Sperm Parameters on the outcome of Intrauterine Insemination

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Objective: To evaluate the association between sperm parameters and the outcome of intrauterine insemination (IUI).

Design: Retrospective study.

Setting: Royan Institute

Patients: 998 couples referred to Royan Institute for six months (October 2008 to March 2009).

Main outcome measure(s): clinical pregnancy

Results: A total of 157 clinical pregnancy were obtained, for a pregnancy rate per cycle of 15.7%. Comparison of semen parameters and age of parents between couples with successful IUI cycle and those with unsuccessful cycles showed that none of the semen characteristics, such as volume, sperm count, motility or percentage normal morphology, was found to correlate with cycle outcome. In addition, there was not any significant correlation between male or female age and success of IUI cycle.
Conclusion: The spermogram is not accurate enough as a prognostic factor for IUI outcome. Moreover, there is not any correlation between the age of couples and IUI outcome.

P-09 Effect of noise stress on count, progressive and non-progressive sperm motility, body and genital organ weights of adult male rats

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Objective: It was decided to investigate the effect of noise pollution the body weight, genital organ weights and also sperm parameters.
Methodology: A total 20 adult male wistar rats were used in this study. All rats were divided into two equal groups (n = 10): (1) control group and (2) experimental group. Animals of the experimental group were exposed to noise for 50 days with intensity of 90-120 db and frequency of 300-350 Hz for 12 hours daily. After 50 days, at first, body weights of all animals were recorded then they were killed. The right epididymides were removed and also, sperm concentration and motility were determined. Each organ was weighed separately on electronic balance.
Results: The weights of the testes, epididymes, seminal vesicle, ventral prostate were found to be significantly decreased in rat exposed to noise pollution when compared with the weights of the same organs obtained from control group ($P<0.05$). There was a statistical difference of $P < 0.05$ between the two groups in terms of sperm concentration.
Conclusion: It is conclude that noise pollution has the bad effects on sperm concentration and motility, so, it is supposed that homes and place of working must be build far away of noisy of factories and other places with noise.
Key word: Pollution, Hormone, Infertility, Pregnancy

P-10 Embryo developmental capacity of oocytes fertilized by sperm of mouse exposed to forced swimming stress

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Abstract

This study was conducted to assess developmental capacity of fertilized oocytes by sperm of mouse exposed to forced swimming stress. Total 30 mice include 20 adult male and 10 female rats were engaged in this study. Male rats were randomly divided in two equal groups (n=10): control and experimental groups. Animals of the experimental group were submitted to forced swimming stress for 3 minutes in water at 32° C daily for 50 days. Males of proven fertility were euthanized and the cauda epididymis removed and immediately inserts into a 150 µL drop of TYH medium+5 mg. mL^{-1} Bovine Serum Albumin (BSA) under mineral oil. The epididymis contents were squeezed out. The spermatozoa were extracted from the caudal part of epididymis. *In vitro* fertilization was carried out in drops of KSOM medium plus, 5 mg. ml^{-1} bovine serum albumin (BSA) under mineral oil. A pre-incubated capacitated sperm was gently added to the freshly collected ova of two groups of study. The combined sperm-oocyte suspension was incubated for 4-6 h under a condition of 5% CO_2 and 37°C temperature. The ova were then washed through several changes of medium and finally incubated in drops of KSOM + 5 $mg.ml^{-1}$ BSA under mineral oil. Fertilization was assessed by recording the number of 1-cell embryos 4-6 h after insemination. The 1-cell embryos were allowed to further develop in vitro for about 120 hours in the same medium. Development of embryos everyday and during 5 days of culture was observed by using inverted microscope. The percentage of oocytes fertilized was 78.12 and 49.5 in control and experimental groups respectively. The difference between two groups of study was significant (p=0.001).At 24 hours after insemination, 93.33% and 78% of fertilized oocytes developed to two cells embryos in control and experimental groups respectively. Statistical analysis showed that the difference was significant (p=0.02). There weren´t significant difference (P>0.05) between two groups of study in terms of speed and developmental capacity of blastocysts. Fertilization capacity of male mice affected by forced swimming stress and also developmental capacity of oocyte fertilized by sperm of mouse exposed to forced swimming stress decreased.

P-11 Does addition of antibiotics to sperm culture media improve sperm quality?

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Background: Antibiotics have been included for many years in human sperm culture media. However, there is concern about the possible toxicity of antibiotics, especially at excessive concentration. Scientists have reported that sperm preparation using medium lacking antibiotics did not remove seminal fluid microorganisms; however, the value of antibiotics is still unclear.
Objective: To evaluate the human sperm motility and survival rates after incubation in culture media lacking antibiotics.
Methods: 12 normozoospermia samples were analyzed according to WHO (2010) criteria. Under sterile condition, each ejaculate was prepared using swim-up technique with Ham's F10 media (20% HSA). Following swim-up, two 0.5ml aliquots, namely A and B, were taken from each sperm suspension. Group A was incubated in Gentamycine-rich Ham's F10 media,

while group B was incubated in Ham's F10 without antibiotic. Rates of sperm motility and viability of the samples were evaluated 2 h and 24 h after incubation.

Result: There were insignificant differences between groups A and B in progressive motility (54.8±16.7 vs. 57.6±18.22 p>0.05), non progressive motility (32.6±14.31 vs. 28.6±14.48 p>0.05) and viability of spermatozoa (95.2±3.52 vs. 93.2±4.13 p>0.05).

Conclusion: Sperm preparation with sterile culture media without Gentamycine didn't have any negative effects on recovery of motile sperm after 24h of incubation. Role of antibiotic-rich culture media in sperm incubation of cases with male factor infertility needs further assessment.

Key words: sperm, swim-up, Gentamycine

P-12 Different Concentration of Ebselen as an antioxidant for Protective effect in preparation of human spermatozoa

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Introduction: It is generally accepted that oxidative stress is an important factor in male infertility because it may impair the physiological function of spermatozoa at the molecular level. Nevertheless, although several approaches have been reported, the imbalance between production of reactive oxygen species (ROS) and activity of the antioxidant defence system in semen is difficult to investigate and remains poorly understood. The present study investigated the effects of adding Ebselen, as an antioxidant, to a sperm preparation medium.

Material & Methods: In this study, 20 normozoospermic between the ages of 20 to 45 referring to Kashan Infertility Center during 2011 were studied. Regarding the World health Organization criteria were as follows: concentration, >60 × 10^6/ml; motility, >50%; total motile sperm count, >40 × 10^6 and strict morphology score, >10%. After washing the sperm with the Ham'sF-10 medium + 20% HSA containing the antioxidants, Ebselen, at various concentrations. After liquefaction, semen samples were washed with the media containing antioxidants at various concentrations of Ebselen (0.6, 1.25, 2.5, 5, 10 µM/ml) 3000 rpm for 5 min. After washing, the sperm suspensions were incubated for 1 h at 37°C in medium with antioxidant. Then sperm count, viability, total motility, forward motility and morphology rates of the spermatozoa were measured using computer-aided semen analyzer (CASA).

Results: The total motility was significantly (P≤ 0.05) higher in sperm swim up with the antioxidant (1.25 µM/ml) than in the other groups. The addition of 1.25 µM/ml Ebselen to the sperm preparation medium significantly (P≤ 0.05) improved the progressive motility and count of the spermatozoa compared with the other Ebselen concentrations. Data didn't show any different significant between groups in viability and morphology rates.

Conclusions: Supplementing sperm preparation medium with Ebselen significantly improved the total motility rate and count of the spermatozoa by reducing the ROS levels.

Key words: Antioxidant, Ebselen, Motility, Oxidative stress, Spermatozoa

P-13 Protective effect of Quercetin as an antioxidant for preparation of human spermatozoa against Reactive Oxygen Specious

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Introduction: Washing sperm by centrifugation can also generate ROS, which has prompted some researchers to add antioxidants to sperm preparations to avoid the oxidative stress induced by centrifugation. The present study investigated the effects of adding Quercetin, as an antioxidant that found in fruit, vegetables, leaves and grains, to a sperm preparation medium.

Material & Methods: 15 normozoospermic patients participated in this study. Semen inclusion criteria were as follows: concentration, >60 × 10^6/ml; motility, >50%; total motile sperm count, >40 × 10^6 and strict morphology score, >10%. After washing the sperm with the Ham's F-10 medium + 20% HSA containing the antioxidants, Quercetin, at various concentrations. After liquefaction, semen samples were washed ones with the media containing antioxidants at various concentrations of Quercetin (100, 300, 500 µM/ml) 3000 rpm for 5 min. After washing, the sperm suspensions were incubated for 1 h at 37°C in medium with antioxidant. Then sperm count, viability, total motility, forward motility and morphology rates of the spermatozoa were measured using computer-aided semen analyzer (CASA).

Results: The total motility was significantly (P≤ 0.05) higher in sperm swim up with the antioxidant (300 µM/ml) than in the other groups. The addition of 300 µM/ml Querctin to the sperm preparation medium significantly (P≤ 0.05) improved the forward motility and count of the spermatozoa compared with the other Querctin concentrations. Data didn't show any different significant between groups in viability and morphology rates.

Conclusions: Supplementing sperm preparation medium with Quercetin significantly improved the total motility rate and count of the spermatozoa by reducing the ROS levels.

Key words: Oxidative stress, Spermatozoa, Antioxidant, motility

P-14 Comparison of sperm preparation techniques: single and double layers density gradient.

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Introduction: Density gradient (DG) technique is considered as one method of choice for sperm preparation. The purpose was to compare two different methods of density gradient on quality of sperm collection.

Materials and methods: Two methods of DG for semen preparation were compared. In methods 1 and 2, DG was done with two layers of pure sperm (80 & 40) according to WHO methods and one layer of pure sperm (only 80). Semen that had quick motility less than 10% was used. The rates of motility, normal morphology, and round cells were compared between 1 h and 24 h after washing. Also, duration of centrifugation in each method was checked and compared.

Results: Specimens prepared using methods 1 and 2 were not significantly different regarding progressive and non progressive motility 1hours after DG (49.7±17.64 & 36.92±4.38 in method 1, 60.23± 5.1 & 27.0±4.10 in method 2 respectively). Also, rates of round cells were not significant in these two methods. Normal morphology in these groups were not significant (36.9± 5.9 & 37.4± 6.4 in method 1 & 2 respectively, P=0.9). The centrifuging time for pellet formation in method 1 was significantly higher than method 2 (10.61±0.95 vs. 8.30±0.55 min, P=0.04). After 24 h, the rate of immotile sperm was significantly more in method 1 (40.18±5.98 vs. 23.00±3.85, P=0.025).

Conclusion: Single layer pure sperm was equivalent to two layers pure sperm (WHO method) for sperm preparation. The single layer method needs fewer centrifuging time. Also, spermatozoa had better motility/ survival than double method after 24 h.

Key words: Density gradient, sperm, motility.

P-15 Study of Level of Inhibin B and Ultra structure of Sertoli Cells in Contra- lateral Testis after Unilateral Blunt Testis Trauma in Rat

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Introduction:

Unilateral testicular injury is always considered with contralateral testicular damages. Any kind of testicular injury may result in unilateral and contralateral testicular atrophy witch will impair fertility (Ozkan et al.,2003). There is evidence that unilateral blunt testicular trauma affects contralateral testicular germ cell maturation through an autoimmune respons (Shaul et al.,1997). inhibin B is the relevant circulating inhibin form in the human male. The Sertoli cell is considered the predominant source of inhibin B (Srinivas et al.,2003;Meachem et al.,2001). Srinivas showed that grade I unilateral blunt testicular trauma in prepubertal rats significantly affected germ cell maturation in both ipsilateral and contralateral testis and altered the sex hormone profile (Andersson et al.,1998 ;Majdic et al.,1997). This study was designed to evaluate the ultrastructure of contra lateral testis tissue and measurement of Serum inhibin B following unilateral blunt testis trauma.

Material and methods:

Twenty pre-pubertal male wistar albino rats aged 3 weeks were divided into 4 equal groups that each containing five rats. Group I was the control group. Group II was used as a Sham group. Group III had right orchiectomy initially. Group IV was the trauma group in which the right testis was placed on a firm sterile surface and the metal rod weighting 100 g was drooped on to the testis from a height of 5.5 cm. Seven weeks after initial operation 3 mL blood samples were obtained from each rat to determine inhibin B levels and contra lateral orchiectomies were performed in all groups to microscopically investigate electron.

Results :

Inhibin B levels decreased in groups 3 and 4. The difference between group 3 with groups 1 and 2 was significant (p = 0.003 and 0.02). Also the difference between group 4 with groups 1 and 2 was significant (p = 0.006 and 0.002) but the difference between group 3 and 4 was not significant (p = 0.08). In group III (orchiectomy) TEM showed a normal sperm morphology and normal disruption of different stages of the spermatogonial maturation. Debris and vacuolar changes were seen in sertoli cells. Morphology of leydig cells slightly modified and the dilated cisternae of the Smooth Endoplasmic Reticulum (SER) were observed in group IV(trauma) mitochondria with degenerated cristae and enlarged vacuole were observed.

Conclusions

Recent study indicated that UTT affected the contralateral testis and serum inhibin B levels reflect sertoli cell function and spermatogenetic activity.

Key words : testis, electron microscope, sertoli cell, rat

P-16 The Effect of ultrasound on folliculogenesis of ovarian transplantation

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Introduction: One of the challenges in ovarian graft transplantation is overcoming the Ischaemia/Reperfusion injury (IRI). Low-intensity ultrasound (LIUS) treatment has been shown to increase mass transport, which could benefit tissue grafts during the immediate postimplant period, when blood supply to the implanted tissue is suboptimal. The aim of this study is to investigate the effect of ultrasound on mouse ovarian tissue heterotopic transplantation.

Materials & methods: 40 adult female NMRI mice were selected and divided to the two groups; control and experiment. In the experiment group, left ovarian tissue underwent ultrasound exposure with intensity= 0.3 w/cm^2 , frequency=3 mhz & puls mode of 1:4 , after autotransplantation into the back muscle. The transplanted ovaries received same conditionit of ultrasound about 5 min daily till 14 days. After this time, ovarian grafts were removed from the site and immediately fixed for histological study.

Results: The results showed that in grafted ovaries the number of total types of follicles were significantly more less than the control one. But the number of primordial and

preantral follicles increased in the experimental group after exposing by ultrasound significantly.

Conclusions: The ultrasound therapy can improve the morphological structure of the grafted ovaries. This is probably due to acceleration of angiogenesis and increasing of growth factors production by low intensity pulse ultrasound (LIPUS).

Key word: Ovarian transplantation, low intensity pulse ultrasound (LIPUS), angiogenesis.

P-17 Genetic Factors of Idiopathic Non-obstructive Azoospermia

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Introduction : The aim of this Multicenter study is to investigate the genetic causes of idiopathic non-obstructive Azoospermic patients, by identifying the types of chromosomal abnormalities and Microdeletions of AZF region on the Y chromosome.

Materials and Methods: Karyotype was done to a group of 780 azoospermic patients, and Microdeletions of AZF region on the Y chromosome were studied for a group of 280 patients.

Results: Chromosomal Abnormalities were detected in 182 cases (23. mostly for numerical chromosomal abnormalities, in which Klinefelter syndrome (XXY) formed the largest proportion (20,51 %). Some rare less frequent cases were also detected, like the case of XX male or translocations.

Microdeletions of AZF region on the Y chromosome were found in 27 patients (9,64 %), most of them were in the AZFa region.

Conclusions: We conclude that, chromosomal abnormalities and Microdeletions of the AZF region at the Y chromosome are responsible for spermatogenesis failure and thus causing male infertility, and such defects exist in our society. We emphasize also, the need for genetic tests to all couples seeking reproductive assistance, and the essential of genetic counseling to explain the type and nature of abnormalities and the risks of transmitting this type of abnormalities to offspring.

Key words: Non-obstructive Azoospermia, Chromosomal abnormalities, Microdeletions.

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Counselling

P-18 Beliefs of Subfertile Saudi women

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OBJECTIVE: To assess the beliefs of infertile Saudi women and acquire information on alternative medicine usage by infertility patients.
METHODS: Between February 2008 and January 2009 a cross-sectional survey was performed in a tertiary hospital. Fifty-one patients attending the Reproductive Endocrinology and Infertility Medicine Department, Women's Specialized Hospital, King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia were interviewed at random. They were asked questions pertaining to their beliefs and alternative therapies used to treat their infertility. Information was entered into an Excel sheet, and statistical analysis was carried out.
RESULTS: Eighteen (35.3%) women believed their infertility was the result of the evil eye, and 13 (25.5%) believed it was due to envy. The first choice when the women realized they had difficulty conceiving were du'a (supplications) (n=23; 45.1%), visiting a doctor (n=22; 43.1%), and reading Qur'an (n=5; 9.8%), although most (n=37; 72.5%) ultimately turned to the Qur'an as a remedy. Herbal medicine was used by 35 (68.6%) patients.
CONCLUSION: We believe healthcare professionals should consider the personal beliefs and alternatives that subfertile women resort to.
Embryology.

P-19 The Effect Of The Angiogenesis Factor (VEGF) On Heterograft Mouse Ovary

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Introduction: Anticancer treatments like chemotherapy and radiation often lead to ovarian failure and infertility. Transplantation of ovarian tissue into bursa cavity , under the kidney capsule or subcutaneous site is the available clinical option in patients who suffer from cancer (ovarian, uterus and breast cancer) or reproductive ailments to restore fertility. But the ischemic injury occurring directly after transplantation without vascular anastomosis and follicular resources depletion observed in grafted ovarian tissue is considered to be a possible problem.

In this study our aim was designed to access neovascularisation around tissue transplanted by use of vascular endothelial growth factor (VEGF) and then we investigate the possibility , quantity and maturation rate of oocytes , gained from ovary transplanted

Methods &Materials: we classified our work in to 2 groups. First n=30 Female mice, 21 days old were obtained ,after anesthesia the ovaries were removed and immediately were transplanted into the gluteus muscle. Second n=40 Female mice 21 days old were chosen .then classified in 4 groups. in each group n=10 mice directly injected VEGF with different dose .0.5,1,2,4 µg/ml exactly coincident while transplanting into muscles. after 3 weeks, mice were treated with PMSG and hCG and the ovaries removed from transplantation site and opposite site, some of the ovaries from each group were used for histological and Immunohistochemistry evaluations and TUNEL test for finding optimum dosage of VEGF factor and compared with control group and The rest of the oocytes were counted and follicles gained from each ovaries cultured into the in vitro medium to investigate the rate of maturation (in vitro maturation IVM) & fertilization (in vitro fertilization IVF) and development and then The ovaries of 6 weeks old mice were considered as experimental groups.

Result: the effect of angiogenesis factor (VEGF) around transplantation ovary by analyzing data from histological and immunohistochemical assays showed it can increase rate of follicles growth and promote the number of follicles especially primordial follicles and decrease ischemic injury but it wasn't Significant.

Conclusion: Neovscularization around transplanted tissue with (VEGF) factor, lead to better accessibility of nutrients and oxygen, thus effect of ischemia injury will be diminish and the rate of follicles growth and the number of follicles in transplanted tissue will be increased.

Key words: Heterograft , transplantation, mouse ovary, ischemic injury, angiogenesis factors, VEGF

P-20 Topic: Embryology/culture media Could culture media for human preimplantation embryos affect IVF/ICSI outcomes? a systematic review

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BACKGROUND: Several studies have indicated that the composition of media used to culture human preimplantation embryos can affect embryo quality as well as pregnancy rates. Despite the clear importance of culture media, there are limited data on the success rates of the different media. The objective of this review was to compare the impact of different culture media on clinical and laboratory outcomes. METHODS A variety of databases (Pubmed, EMBASE, MEDLINE, etc), reference lists and abstracts were searched for articles published between January 1985 and January 2011. Only studies describing randomized

controlled trials that allocated women or oocytes or embryos to different embryo culture media were included. Primary outcome was life birth. Further clinical outcomes reviewed were clinical pregnancy rate, ongoing pregnancy rate, multiple-pregnancy rate, miscarriage rate and percentage of congenital abnormalities. Laboratory outcomes reviewed were fertilization rate, embryo quality, cryopreservation rate and implantation rate. RESULTS Out of the 376 potentially relevant abstracts, thirty seven studies were finally included. All thirty seven studies involved comparisons of different culture media precluding pooling and meta-analyses of the data. Only four trials reported on live birth rates and in only one trial, evidence of a difference was reported, i.e. there were more live births observed after embryo growth in G2 medium than after embryo growth in HTF medium. For the other laboratory and clinical outcomes, statistically significant differences were found for only a few comparisons. CONCLUSION There is little evidence in the literature indicating which culture medium is best for human preimplantation embryos. Given the importance of culture media for treatment outcome, properly designed randomized control trials are urgently needed.

Key words: Culture media, live births, randomized control trial, systematic review

P-21 The effects of different cryoprotectants combinations on follicular surviving and apoptosis incidence in vitrified-warmed whole rat ovary

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Background: As other researchers showed the effects of different cryoprotectants on ovarian structure depends on species, so our aim was to assess the effects of different cryoprotectants combination on follicular surviving and apoptotic incidence in vitrified-warmed whole rat ovarian tissues.

Materials and Methods: prepubertal female Wistar rats aged ~5 weeks old were used for ovarian tissue vitrification. Experiments were repeated 5 times and there were 7 groups: Control (intact), V_I (EG+DMSO), V_{II} (EG+PROH), V_{III} (DMSO+PROH), V_{IV} (EG+DMSO+0.25mol/lit Sucrose), V_V (EG+PROH+0.25mol/lit Sucrose) and V_{VI} (DMSO+PROH+0.25mol/lit Sucrose). All solutions checked with toxicity test (T_I, T_{II}, T_{III}, T_{IV}, T_V and T_{VI} groups). Fixed samples were sectioned serially and stained with H&E and anti & pro active caspase-3 kit.

Results: it was demonstrated that the combination of the cryoprotectants in V_I and V_{III} groups had more positive effects on the follicular–survival than other groups. Intact primordial follicles number in the control group (36.53% ± 0.03) was higher and significant than all vitrification groups. The number of intact primary follicles indicated no significant difference between all groups. The intact preantral follicles rates were non-significant and close to control group in all experimental groups (9.01% ± 0.01). The ability of the cryoprotectants in antral follicles maintenance in V_{II} (21.63% ± 0.01) and V_{VI} (21.39% ± 0.01)

groups were close to the control one (19.86% ± 0.02). The incidence of apoptotic follicles was similar and non-significant in all experimental groups.

Conclusion: on the basis of this research data, the combination of EG + DMSO is better than others in follicular surviving ability and reduction of apoptotic incidence in whole rat ovarian vitrification procedure.

Abbreviation: Rat, Ovary, Cryoprotectants, Vitrification

P-22 Fetus and its latent potentialities

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Introduction: One of the questions set forward as to the fetus and its latent potentialities and the treatment of infertility is whether the fetus can be regarded as a miniature human being having all the qualities, properties and characteristics attributed to a mature and grown-up individuality.

The main purpose of this article is to cast a light on this subject in regard to the question of abortion, the "dieh" or the blood money paid as a fine, and gender selection according to the Islamic jurisprudence.

Stated by those specialized in embryology, the fetus experiences various stages as being a zygote, morula, blastula, pre-embryo and embryo. So it will be absolutely necessary in which stage of the above-mentioned can a fetus be considered as a complete being and what judgment must be made so that in view of the Islamic laws and regulations its right to live be protected, preserved and respected.

Methodology: This research is mainly based on an analytic methodology and library study. First of all, our criteria on the individuality of a human being have been presented here in accordance with the viewpoint expressed and forwarded by the western scientists. Then the matter has been examined and analyzed to what that has been said and written by the Islamic theologians and philosophers.

Findings: Western researchers have considered different stages in regard to the gradual growth of the fetus as the egg fertilization, the placenta formation, the activities of the brain waves, the duration of the fetus in the mother's womb, and finally its separation from the mother.

The differences between these distinctive stages are somewhat indicative of the lack or, better said, the absence of an acceptable and convincing criterion on which these stages surrounding man and his gradual growth rest. While improving on the bases required for the gradual recognition of man's development, the Transcendent philosophy, belonging to the Islamic philosopher known as Mulla Sadra of the 17th century, explains and expounds the various stages man has to go through in order to attain perfection as a human being. In other words, man has to experience mineral, vegetative and animal phases so as to develop his latent potentialities differentiating him from other animals.

Shiite scholars versed in the Islamic jurisprudence called "Feghh", together with the principles presented by Sadra in the Transcendent philosophy, have determined and

designated the blood money paid as a fine according to which the main aim of this research will be explained, interpreted and clarified.

Conclusion: To protect the rights pertaining to the fetus and to prevent unnecessary abortion in regard to different opinions expressed by the scientists on this vital subject, have brought about different theories, ideas and attitudes on the individually of the fetus.

Fortunately, such discrepancies and diversities of opinions do not exist in Islam, for, from the very beginning, the rich Islamic laws have presented exact criteria helping the researcher find a way towards the solution of the difficulty. The comparison between the answers together with the views expressed by the founder of the Transcendent philosophy will lead the researcher to the fact that they are all in agreement and co-ordination with those expressed by the Shiite scholars and have been approved and ratified by the theologians of this sect of Islam.

In reality, the rich Islamic laws by themselves are not in need of any philosophical interpretation. On the contrary, the answers given in this case and the way the problem has been treated are absolutely in accordance with what expressed by the innovator of the Transcendent philosophy. This way of handling the problem bears no similarity with what the western scientists have expressed and suggested. They have resorted to philosophy to find an answer to the problem whereas their philosophical reasoning has turned out to be unable to give a definite and clear-cut answer to the question of the individuality of the fetus.

Keywords: fetus, man, life, soul, the innate motion.

P-23 Effect of Aqueous Extract of *Crocus sativus* L. (Saffron) Stigma on Folliculogenesis in Mice

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Introduction: The aim was to study the possible role of aqueous extract of Crocus sativus L. (Saffron) stigma in treating infertility and reproductive disorders in females.

Material & methods: 30 adult NMRI female mice were equally divided into the five groups. Group C received no extract of saffron as a control and groups of E2, E3, E4 and E5 treated respectively by 25, 50, 100 and 200 mg/kg extraction of saffron stigma at every other day, for 12 d. Then they were killed by cervical dislocation and Cumulus-Oocyte Complexes (COCs) were collected from ovaries. COCs were cultured in IVM medium. After that the

maturation, fertilization and development rates were recorded and furthermore the most effective dosage was evaluated by histological assays.

Results: The data showed that administration of 100 mg/kg aqueous extract of saffron stigma resulted in higher maturation, fertilization and embryo developmental rate more than control. Also histological studies of the ovarian sections showed that administration of 100 mg/kg extract enhanced folliculogenesis and increased the numbers of primary and antral follicles as compared to co ntrol group ($P<0.05$).

Conclusions: Thus the aqueous extract of saffron as a natural antioxidant can improve fertility, which may be attributed to crocetin and/or flavonoids contents of the extract.

Key words: Saffron stigma, aqueous extract, maturation, fertilization, folliculogenesis.

P-24 Follicular dynamics of estrous cyclicity in neonate vitrified ovarian grafts after treatment of the ovariectomized host with melatonin

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The effect of melatonin on follicular dynamics of estrous cyclicity in neonate vitrified ovarian grafts was studied. Vitrified ovaries from neonate F1 hybrid mice, candidates for transplantation to treated or no-treated 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. Vaginal cytology to monitor estrogenic activity together with follicle survival and development in the ovary grafts were examined. 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 remedy 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. 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.

Keywords: Melatonin; Ovaries allograft; Vitrification,; Reactive oxygen species; Ovarictomy; Estrous cyclicity

P-25 Time to start infertility work-up in law resource settings; Awareness and attitudes of consumers and their health service providers. Force and counterforce.

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Introduction: Infertility causes significant physical, emotional, and socioeconomic problems for individuals and society. There is a lot of pressure on couples to have a baby, especially in law resource settings.

The chance of a perfectly normal couple achieving a successful pregnancy is only about 25% per month. Due to economic problems in law resource settings, the husband (s) used to spend few months with his wife and travel abroad for years, so the duration of marriage after which starting infertility work-up in these special circumstances is debatable.

Providing clients with relevant information, respecting their wills, and considering their competence to make treatment decisions is crucial for the quality of fertility care. During counseling, consultants advice the healthy couples to stay together at least one year before interventions, this appears unacceptable for them. The force of overwhelming desire for children counterforce the advices to postpone treatment. Considering the patient wishes represent the counterforce for this social and clinical dilemmas .

Materials and Methods: This study was conducted at three tertiary referral infertility units in a law resource setting over a 9-months period.

In this national survey 900 couples with interrupted martial life and 30 consultants were surveyed for their attitudes & acceptability about the proper time to start infertility work-up. It was hypothesized that less than 50% of the clients & consultants are in favor of starting early interventions.

Results: The response rate was 76% and 81% for the clients and consultants respectively. The majority of couples with interrupted marital life (87%) are in favor of starting infertility work-up earlier irrespective of the duration of marriage. They felt generally well informed by their doctors about the cumulative pregnancy rate and the risks of early treatment. The multiple regression analysis showed that there is a high correlation between the client's awareness of the possible risks of early treatment, and their beliefs of the proper timing ($p \leq 0.05$). 74% of the consultants saw generally little problems with providing information to their patients. 45% of consultants granted the patients the final decision to start treatment respecting their wishes.

The hypothesis was accepted, giving reason for concern about the effectiveness of consumer education at all levels of infertility management.

Conclusions: This study gives the first insights into the attitudes of both consultants & consumers in law resource settings regarding onset of start infertility work-up. Couples are in favor of early starting in a meaningful manner. Furthermore, consultants try to advice them to adjust their life style.

Our data must be interpreted very carefully and further studies are necessary. In general, the findings of the study could help the policy makers on the legalization of traveling laws.

Keywords: Infertility, proper time, law resource settings.

Infertility

P-26 Quality of life in fertile mothers and infertile mothers

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Introduction: Infertile women suffer from psychological, emotional and affectional problems more than fertile women. On the other hand, when they have children after a laborious and expensive process of infertility treatment, they are spending more accuracy and more obsessed to their children and this may change their Quality of life.

Materials and methods: This case-control research was conducted on 86 pregnant women by using assisted reproductive technique that referred to Royan Institute as case group and 76 spontaneous pregnant women who referred to gynecologists as the control group. Accessible Samples were selected and Short Form Questionnaire (SF-36) was completed before and after the delivery. Data was analyzed with statistical tests.

Results: Research findings showed that the quality of life of pregnant women using assisted reproductive after delivery was better than before delivery. The quality of life of pregnant mothers using assisted reproductive technique was better than the control group.

Conclusion: Considering the dimensions of quality of life in infertile mothers and planning to upgrade it can cause promotion of health condition in infertile couples.

Keywords: Quality of life, FS-36 questionnaire, Infertility, Pregnancy, Childbirth, IVF

P-27 Effect of administrating Piroxicam before Embryo Transfer on ART) Outcome (A Pilot Study)

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Background: Several factors contribute to the ultimate result of ART in different stages of the procedure. One of the most important factors affecting success rates besides the number of oocytes retrieved and high quality embryos derived from them in the laboratory is the technical aspects of embryo transfer.
Objective:This study was performed with the aim to assess the effect of administrating Piroxicam prior to embryo transfer on pregnancy rates in ART cycles.
Materials and Method: This pilot study was performed in Vali-e-Asr Hospital as a double-blind clinical trial from August 2005 through December 2006 on 44 infertile women in ART cycles. Recombinant FSH (Gonal-F) with a long GnRH analogue protocol was used for controlled ovarian hyperstimulation. The subjects were randomly allocated into two groups of 22 patients after obtaining written consent. Group A received a 10mg Piroxicam capsule 30 minutes before embryo transfer and group B was the control group with no treatment. Data were analyzed by $\chi 2$, t-test, ANOVA, and Kruskall Wallis tests.
Results: Overall pregnancy rate was 34% (n=15), with 31.8% (n=7) and 36% (n=8) in groups A and B respectively (P= 0.75). Uterine cramps were experienced by 3 women (13.6%) in group B while none were reported by women in group A (P=0.07).
Conclusion: It seems that Piroxicam administration 30 minutes prior to embryo transfer cannot increase pregnancy rates and has no other beneficial effects .
Key Words: *Embryo Transfer,Piroxicam, , Pregnancy Rate, ART*.

P-28 Cervical dysgenesis in pregnancy

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Objective: To report a case of cervical dysgenesis in a patient who became pregnant through IVF and transmyometrial ET.
Design: Case report, Setting: King Fahad Medical City.
Patient(s): A 28-year old nulligravida with cervical dysgenesis who underwent in vitro fertilization (IVF) and transmyometrial embryo transfer (TMET).
Intervention(s): Controlled ovarian hyperstimulation, IVF and TMET
Main Outcome Measure(s): Successful intrauterine pregnancy and live birth.
Result: live birth of a single baby boy at 27 weeks was achieved after TMET.
Conclusion(s): Successful pregnancy is possible in similar patients, eliminating the need for reconstructive surgery.
Key Words: Primary amenorrhea, cervical dysgenesis, IVF, transmyometrial embryo transfer.
Luteal Supplement

P-29 Comparing intramuscular progesterone, vaginal progesterone and 17 α-hydroxyprogestrone caproate in IVF and ICSI cycle

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Background: Supplementation of luteal phase with progesterone is prescribed for women undergoing routine IVF treatment.

Objectives: The objective of this prospective, randomized study was to compare the efficacy of three types of progesterone on biochemical, clinical and ongoing pregnancy , the abortion and live birth rates.

Methods: A prospective randomized study was performed at Royan Institute between March 2008 and March 2009 in women under 40 years old, who use GnRH analog down-regulation. One hundred eightly six patients in three groups were received progesterone in oil(100 mg, IM daily), intravaginal progesterone (400 mg, twice daily)and 17-α hydroxyprogestrone caproate (375 mg, every three days) respectively.

Results: Final statistical analysis after withdrawal of some patients was performed in 50, 50 and 53 patients in group 1, 2 and 3 respectively. No differences between the groups were found in baseline characteristics.

No statistical significance different was discovered for biochemical, clinical and ongoing pregnancies. Although the abortion rate was statistically higher in group 1 ($p = 0.025$) the live birth rate was not statistically significant between the three groups.

Conclusions: The effects of three types of progesterone were similar on pregnancies rate. We suggest the use of intravaginal progesterone during the luteal phase in patients undergoing an IVF-ET program because of the low the numbers of abortions, and high ongoing pregnancy rates.

Key words: In vitro fertilization; Luteal phase; Progesterone; Pregnancy

Sexuality

P-30 Compression of sexual dysfunction during three trimester of pregnancy

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INTRODUCTION: Sexuality is an important part of women's health, quality of life, and general well-being. There are many factors influencing the female sexual function. Pregnancy plays an important role in the sexual function and behavior of women. This study aims to evaluate the sexual function and to determine the prevalence of sexual dysfunction among women during pregnancy.

Method: A cross-sectional study was conducted between April 20011 and September 20011 using 257 healthy pregnant women, aged18-40years, who attended the antenatal clinic, paymaneh Hospital. The Female Sexual Function Index (FSFI) questionnaire was used for sexual function assessment.

RESULT: The mean age of respondents was 26/45±4/49years. 143, 69and 45pregnant women were in their first, second and third trimester. The women sexual function showed a different pattern during the first and second and third trimesters; there was a significant difference in the scores of all FSFI domains when comparing the second and third trimesters. The mean total FSFI score was 19/9`±22/45. One hundred and ninety seven (79/1%) were categorized as potentially sexual dysfunction (FSFI score < 26.5) while only 52 (20/9%) had normal sexual function (FSFI score > 26.5). The sexual dysfunction among pregnant women was rated 23/4%in the first trimester, 30/5% in the second and 46.2% in the third.

CONCOLUSION: Prevalence of sexual dysfunction is high during pregnancy and reaches higher levels in the third trimester. Pregnant women and their partners need counseling about physical and psychological changes in pregnancy.

Key words: Sexual dysfunction. Pregnancy, Prevalence

Oral and Poster Presenters

Indexed by oral (O) and Posters (P) numbers