

B- Poster Presentations

1- Infertility, Gynecology

P-1

Evaluation of the thyroid autoimmunity in POF women in comparison with normal ovulatory women

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Introduction: Premature ovarian failure (POF) occurs in women younger than 40 with 1-5 % prevalence. POF is a pathological condition and has negative effect on the health of affected women and leads to infertility. The main etiology of this disease is unknown but in many studies, immunological disturbances especially against thyroid glands have been introduced as possible causes.

However, it hasn't been proven by other studies. The aim of this study is the evaluation of several immunological tests in the POF women in comparison with normal ovulatory women.

Materials and Methods: This prospective clinical case-control trial was done in Avicenna Infertility Clinic on 30 nonsmoking women with spontaneous POF at least for 1 year who didn't have any previous history of bilateral oophorectomy, chemotherapy and radiotherapy with the serum FSH 3rd level more than 30U/L (case group) and compared with 30 nonsmoking normal ovulatory women (<40 years.old) who were under infertility workup for male factor with serum FSH level lower than 8 U/L (control group). The below stated tests were done in each group: ANA, dsDNA, RF, anti thyroglobulin Ab, anti TPO (anti microsomal Ab) and hormonal tests including: FSH-LH-TSH.

Results: In control group, there were 4 cases of thyroid disease vs. 0 in case group (P=0.02). The mean average of ANA, dsDNA, RF, anti thyroglobulin Ab, anti TPO (anti microsomal Ab) and TSH didn't have any significant differences between two groups.

Conclusion: Based on our study, we couldn't find any disturbances either in immunological tests or in thyroid function of POF women as compared with normal ovulatory women.

Key words: POF, Anti TPO, TSH, Immunology.

P-2

Comparative molecular and culture-based diagnosis of vaginal colonization by group B streptococcus in pregnant women during labor

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Introduction: Group B *Streptococci* (GBS) or *Streptococcus agalactiae* are members of the normal flora of the female genital tract and are an important etiological agent of neonatal sepsis and meningitis.

Rapid detection methods for GBS may be advantageous for women who present in labor without any information on their GBS colonization status and allow early treatment of neonates. This study aimed to evaluate the diagnostic accuracy of PCR assay for detection of group B *Streptococcus* using a specific culture method.

Materials and Methods: Two swabs were used to obtain vaginal specimen from 330 pregnant women attending delivery room at Hedayat Hospital, Tehran, Iran, from April through July 2008. A swab was immediately placed into Amies transport medium with charcoal (Hi-Media, India) and another swab was soaked in tube containing 1 ml of phosphate-buffered saline (PBS), (pH 7.2). One swab was analyzed using a specific culture method, which included direct plating onto selective GBS agar medium (Islam). *S. agalactiae* developed orange-red pigmented colonies in GBS agar plates under anaerobic condition. The other

swab was used for DNA extraction and PCR assay targeting the *S. agalactiae* 16S ribosomal RNA gene for detection of group B *Streptococcus*. The length of the amplified product was 405 bp. To confirm amplicon production, the PCR products were analyzed by electrophoresis.

Results: Among the 330 pregnant women, 68 (20.6%) (95% CI 16.7-24.5%) were identified as carriers of group B *Streptococci* on the basis of the results of culture on GBS agar. Both of the culture and PCR methods were positive for 56 (17%) and negative for 253 (76.6%) women. The culture method was positive and PCR was negative in 12 (3.6%) women. The culture was negative and the PCR positive for 9 (2.7%) women. Sensitivity of the PCR assay was 82.3% (95% CI 78.4-86.2%) and specificity was 96.5% (95% CI 94.5-98.4%). The positive predictive value was 86.15% and negative predictive value was 95.4%.

Conclusion: The results of our study indicate that the colonization rate of GBS in studied population of pregnant women is relatively high. A rapid method for the detection of this organism at the time of delivery is greatly needed. Group B *Streptococci* can be detected rapidly and reliably by a PCR assay of vaginal secretion from pregnant women during labor and decrease the time to detection of GBS.

Key words: Group B *Streptococcus* (GBS), Vaginal flora, PCR, GBS agar.

P-3

Colonization rate of vaginal *Lactobacillus* species in pregnant women during labor

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Introduction: The human vagina and its microflora form a balanced ecosystem having an important role in maintaining the vaginal health of women. The vaginal microflora composed of both anaerobic and aerobic bacterial species in which *Lactobacilli* are the most predominant bacterial species in women of reproductive age. *Lactobacilli*

can inhibit other potentially harmful microorganisms, prevent infections of the urogenital tracts and associated with a reduced risk of bacterial vaginosis (BV). We studied pregnant women during labor phase to determine the prevalence of *Lactobacillus* species and effective factors on vaginal colonization of these bacteria.

Materials and Methods: A total of 330 vaginal swabs were collected from women attending delivery room at Hedayat Hospital, Tehran, Iran, from April through July 2008. Cotton swabs contaminated with vaginal fluid were placed in tubes contained 1 ml phosphate-buffered saline (PBS), (pH 7.2) and with completed questionnaire forms, transported to the Avicenna laboratory daily. DNA was extracted from the bacteria present on vaginal swabs and PCR assay was carried out by universal primers which uses amplification to detect the presence of the 16s rRNA gene of *Lactobacillus* species. The length of the amplified product is 231-233 bp. To confirm amplicon production, the PCR products were analyzed by electrophoresis. All data were statistically analyzed by independent *t*-tests, *chi* square, Fisher's exact test, and multiple logistic models. $p < 0.05$ was considered as significant.

Results: Among 330 samples, the results of the PCR were positive for *Lactobacilli* in 322 women (97.6%) (CI 95%: 96.0-99.2%). The mean age of *Lactobacilli* positive women was 25.7 ± 4.6 years and the mean age of *Lactobacilli* negative women was 30.7 ± 4.5 years. According to their questionnaire data, 78 (92.9%) of 84 with history of vaginitis during pregnancy, 244 (99.2%) of 246 without history of vaginitis and 7 (77.8%) of 9 who delivered < 37 weeks, 315 (98.1%) of 321 who delivered > 37 weeks, were positive PCR results. Statistically analysis showed significant relationship between the mean age of participants, history of vaginitis and gestation age with PCR results of *Lactobacillus* species ($p < 0.05$).

Conclusion: The results indicate that the prevalence of *Lactobacillus* species in studied population of pregnant women is high. There is considerable evidence that the prevalence of vaginal *Lactobacilli* is associated with increased levels of estrogen which increases during pregnancy. Moreover, the colonization rate of *Lactobacillus* species in younger women, without history of vaginitis and term birth is more than older women, with history of vaginitis and preterm birth ($p < 0.05$). These findings reflect the relationship between the age and presence of *Lactobacillus* species in vagina, beneficial role of

Lactobacilli in term birth at > 37 weeks gestation and prevention of vaginal infection.

Key words: *Lactobacillus species, Vaginal flora, Vaginitis, Preterm delivery.*

P-4

Laparoscopic removal of dysgenetic gonad containing a gonadoblastoma in a patient with Swyer Syndrome followed by ART and oocyte donation

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Introduction: Diagnosing the causes of primary amenorrhea and gonadal dysgenesis, we can prevent the development of germ cell tumors in patient with 46XY karyotype and patients benefit from HRT and are potential candidates for donor oocyte. Thus this report indicates importance and increases life expectancy in patients.

Case report: A 21-year old female with 2.5 years of infertility was evaluated in 1385 due to primary infertility. Secondary sexual characteristics, external genitalia, cervix and vagina were normal. High level FSH-LH (52, 22.6 mIU/ml), normal testosterone (0.4 ng/ml), low estradiol (9 pg/ml) were reported. In TVS infantile uterus and small gonads (17×18 mm), distinguished, karyotype was 46xy. Prophylactic gonadectomy with laparoscope was performed and streak gonad removed. Histological report showed right streak gonad with ovarian stroma and left gonadoblastoma. ART with oocyte donation was performed; single pregnancy occurred but aborted.

Conclusion: One of gonadal cause of amenorrhea is primary gonadal defect (Swyer Syndrome). This rare syndrome is a pure gonadal dysgenesis with karyotype of 46XY. Characterized by female phenotype, infantile female external genitalia, deficient secondary sexual development, hypoplastic uterus and fallopian tubes and streak gonads without Turner stigmata. These streaks often display ovarian stroma but no follicles. Their propensity to tumor development is significant, about 20-30%. Incidence of tumor in patients with mosaic patterns reduces (10-15%). The most common tumor is gonadoblastoma, but dysgerminoma and the more threatening (embryonal carcinoma) are seen. TO prevent virilization and neoplasia, streak gonad should be

removed. Visible gonad can be removed with laparoscope, the uterus and tubes should be preserved for the possibility of pregnancy with donor oocytes. If the gonads prove to be inaccessible, preoperative MRI is helpful to accurately localize gonadal tissue and select the correct operative approach because the gonads can be close to the external iliac artery and herniated in to the inguinal canals.

Key words: *Gonadectomy, Laparoscopy, Swyer Syndrome, ART.*

P-5

Fertility sparing in infertile women with endometrial cancer or complex atypical hyperplasia

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Introduction: Endometrial cancer is the third most common gynecological cancer in Iran. This malignancy may occur in 3-5% of young women with the age of <40 years. Infertility and PCOD are the most common risk factors of endometrial cancer and these patients hope to preserve fertility after diagnosis.

Materials and Methods: We describe 6 cases of early stage endometrial cancer or complex atypical hyperplasia that preserve their fertility and treat with hormonal therapy.

Results: Standard of treatment in patients with endometrial cancer is surgery. After complete evaluation of patients, clinical staging, and ruling out of myometrial invasion with MRI and inform consent, we can suggest this non-surgical treatment to the couples.

Conclusion: Our experience approved this important point and in 2 patients having partial myometrial invasion (stage IB) disease, it was not responsive to megestrol acetat and these patients underwent hysterectomy with staging.

Key words: *Hormonal therapy, Endometrial cancer, Fertility.*

P-6

Anxiety in primgravidas and pregnant women with history of fetal or neonatal death

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Introduction: Previous history of fetal or neonatal death can have a negative effect, and can also increase anxiety during current pregnancy and produce irretrievable effects. This study to assess and comprise anxiety in primigravidas and pregnant women with the history of previous fetal or neonatal death.

Materials and Methods: A two-group comparative design and nonrandomized sampling method (sequential) was used. We collected 120 Iranian pregnant women with a basic education, who were in 3rd trimester of their planned current pregnancy (20-40 years old). 40 of the samples had previous history of fetal or neonatal death (without any live child) and 80 of them were prim gravidas. The tools, used for this study, had two main parts: personal characteristics, and pregnancy outcome questionnaire (POQ of Theut *et al* 1988).

Results: We only found significant difference in 8 of 15 statements of POQ between tow groups. The average of anxiety during pregnancy in the pregnant women with previous fetal or neonatal death was more than second group. The independent t-test also showed a significant difference between tow groups ($p=0.000$).

Conclusion: Due to the increase of anxiety in pregnant women with previous history of fetal or neonatal death, it sounds necessary to plan supportive, educational and counseling program for the mentioned high risk group of women. We suggest to continue the same research during the first and second trimester of pregnancy and postpartum in the clients whom will be visited in the other clinics.

Key words: Anxiety, Pregnancy, Fetal Death, Neonatal Death.

P-7

Evaluation of the causes and therapeutic results of the infertile patients undergoing laparoscopy

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Introduction: Laparoscopy is one of the diagnostic and therapeutic methods in infertility. With this method, the causes of infertility

(including pelvic, uterine and ovarian factors) that have not been indicated in primary evaluations can be diagnosed and treated.

Materials and Methods: In a cohort study on infertile female patients referring to Novin Center of Gynecology and Infertility and Moosabne Jafar Hospital, after primary clinical and paraclinical evaluations of infertility and using of medical treatment, 140 patients candidated for laparoscopy, selected and underwent the procedure. Laparoscopic results were evaluated in patients with primary and secondary infertility.

One considerable aspect of this study is that in the case of PCOS patients, ovarian cauterization was done. Then, the patients were treated according to the laparoscopic results with one of ART procedures and were followed within one year for evaluation of the fertility outcomes (pregnancy rate and miscarriage).

Results: 74% of the patients had primary infertility and 26% had secondary infertility. The most common cause of primary infertility was PCOS and the most common cause of secondary infertility was tubal factor. The successful rate of pregnancy in patients with endometriosis were 58.1%, tubal factor 44.1%, PCOS 66.7%, uterine anomaly 40%, PCOS with endometriosis 71.4% and PCOS with tubal factor 22.2%. The rate of miscarriage, in patients with endometriosis, was 6.4%, tubal factor 8.8%, PCOS 2.5% and PCOS with tubal factor 11.1%. In patients with uterine anomaly and PCOS with endometriosis, no miscarriage was observed.

Conclusion: According to the results of this study, laparoscopy is a safe method in diagnosing the uterus, pelvic and ovarian factors and can improve the fertility outcomes in the infertile patients.

Key words: Laparoscopy, Infertility, PCOS.

P-8

"PCOD as risk factor for pre-eclampsia" Study of pre-eclampsia's risk factors in singleton patients in the Fatemiyeh Hospital of Hamedan

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Introduction: preeclampsia is a major cause of maternal and fetal mortality and morbidity. The incidence of preeclampsia is 2-10%, depending on

the population studied. This disease is the priority of WHO but pathophysiology of preeclampsia is not absolutely known. With attention to complications of preeclampsia, pregnancy complications recognize that the risk factors is obligatory for reducing MMR and increasing civil healthy index.

Materials and Methods: Completion of questionnaire was done throughout by direct interview of patients. Each preeclamptic patient was matched for age with one control patient and then patients compared with control group. According to the data, number of patients in the experimental group and also the control was 142. Details of questionnaire were collected and analyzed with 10th edition of SPSS.

Results: Significant p-value of PCOD (history of hirsutism + oligomenorrhea and high BMI before pregnancy)-UTI-previous preeclampsia in multipar women-family history of preeclampsia and passive smoking in case groups, was compared with control groups ($p < 0/05$). Also high rate of C/S in patients and more consumption of ASA, folic acid, vitamin C and E was also noted in preeclamptic group.

Conclusion: Confirmation of these risk factors in developing preeclampsia include PCOD- UTI-previous preeclampsia-positive family history and passive smoking. More attention has to be paid to the women having risk factors of preeclampsia and elevated prenatal cares and in a better condition using prophylactic regimens such as vitamin C and E, β -carotene and high fiber diet.

Key words: Preeclampsia, PCOD, Proteinuria, Risk factors.

P-9

Women's quality of life after hysterectomies

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Introduction: Gynecologic disorders are among the most common health problems in women. If drug treatment fails to treat these problems, hysterectomies are done. The objective of this study was to determine and compare the quality of healthy life before and three months after hysterectomy in treatment and control groups.

Materials and Methods: Fifty five women with no hormone replacement therapy in treatment group, and 57 women matched as their history

reports; for underlying disorders: (diabetes mellitus, cardio-vascular diseases), were examined during the present study. Subjects were selected upon a pilot study, and by consecutive non-probability sampling. Data were collected with a predetermined questionnaire; and processed and analyzed with statistica 6 software. *Chi* square and t-tests were used for analyzing accordingly.

Results: Before and after hysterectomies, mean scores of general health quality were statistically different ($p < 0.0001$); its depression component had no difference. General disorders and clinical symptoms were different with different degrees; ($p = 0.0005$ for urinary incontinence to $p = 0.023$ for urinary urgency). Pelvic pain ($p = 0.056$) and vertigo ($p = 0.21$) shows no statistical differences.

Conclusion: After hysterectomy total health quality scores statistically improves; but anxiety score shows less; and depression score shows no statistical difference. We recommend carrying out a larger study with benign and malign disorders separately to more generalizing findings.

Key words: Hysterectomy, Quality of life, Women general health.

P-10

Delayed transfer of embryos from 2 to 3 or 4 days after oocyte retrieval would increase the pregnancy rate in ICSI

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Introduction: Embryo transfer (ET) was traditionally performed two days after oocyte retrieval. Delaying transfer from day two to three or four would allow for further development of the embryo, might therefore optimize the selection of viable and best quality embryos for transfer and may be closer to the physiological time of the uterus entry than transfer on day two, and might have a positive effect on pregnancy outcomes. The aim of this study was to determine whether delayed embryo transfer from 2 to 3 or 4 days after oocyte retrieval would increase the pregnancy rate in ICSI (intra cytoplasmic sperm injection) procedure.

Materials and Methods: In this cross-sectional study, we evaluated infertile couples who referred to Mehr Infertility Institute between "2006-2008" for ICSI, prospectively. Patients were randomized

to receive embryo transfer at 2, 3 or 4 days. We compared embryo quality, pregnancy rate and implantation rate among day 2, 3 or 4 of transfer. All of the couples with male factor, tubal factor, ovulatory factor and unexplained under 37 years old were included. Control ovarian hyperstimulation (COH) was performed with long protocol.

Pregnancy rate was confirmed by measurement of β -hCG in serum after 14 days. After data collection, analysis was carried out with *t*-test and *chi* squares test by using statistical software SPSS 10.

Results: During the study period, 1028 patients were analyzed. Overall clinical pregnancy rate (CPR) was reported in 479/1028 cycles (46.6%). The mean age of the patients was 32.7 ± 6.4 years. The Mean duration of infertility was 8 ± 5.8 years. The mean age of women and duration of infertility didn't differ on day of embryo transferred ($p > 0.05$). Overall CPRs were the same (50.3%) on day 2, (46.5%) on day 3 and (34.8%) day 4 of transfer respectively. There were no significant differences among the age of transferred embryos between pregnant and non pregnant women ($p > 0.05$).

Conclusion: Due to result of present study, there were not any statistically significant differences in pregnancy rate according to day of embryo transfer.

Key words: Embryo transfer, Pregnancy rate, ICSI.

P-11

Comparison of shape of uterine septum in infertility and recurrent abortion

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Introduction: Uterine septum, because of its effect on infertility and recurrent abortion, is very important and pregnancy outcome is obviously improved by hysteroscopic metroplasty (HM). In one study, women who had uterine septum and suffered from infertility, underwent HM and the pregnancy outcome reached to 52.4% after the operation. In this study, we evaluated probable relationship between uterine septum shape (length and width) with infertility and recurrent abortion.

Materials and Methods: This clinical trial was carried out from January 20, 2004 to February 18, 2007 and all patients who entered Ahvaz Educational Hospitals for evaluation of infertility and recurrent abortion underwent hysterosalpingography (HSG). Patients with

suspected uterine septum were referred to Imam Khomeini Hospital according to HSG and entered to study. The patients underwent simultaneous hysteroscopy and laparoscopy firstly and HM was done then after. The participants were checked by new HSG after one month and were evaluated for pregnancy outcome after one year.

Results: Fifty patients were studied (28 and 22 patients who suffered from infertility and recurrent abortion, respectively). Septums width was equal or less than 3 cm in 62.5% of patients while length of septums occupied two thirds of uterine cavity in 48%. According to septums width and length, the differences were not meaningful in both groups ($p = 0.599$ and 0.261 , respectively). Patients who suffered from infertility and recurrent abortion reached pregnancy outcome of 71.4 and 76.5% respectively, and the difference was not meaningful in both groups ($p = 0.75$).

Conclusion: According to our findings, it seemed that septum s shape (width and length) has no influence on infertility and recurrent abortion. It is suggested to pay attention to uterine septum (no considering its size), and resection be performed. So, in patients with uterine septum who suffer from infertility and recurrent abortion, HM is an appropriate approach.

Key words: Hysteroscopy, Uterine septum, Abortion.

P-12

Study of the frequency of preterm labor and viability of preterm neonates in Ghods and Ali Ebne Abitaleb Hospitals, Zahedan, Iran in 1383-86

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Introduction: Preterm labor is defined as labor between 20-37 weeks of pregnancy that is 8-10% of total labors. This problem may begin spontaneously or we were obliged to terminate pregnancy for salvation mother, fetus or both for example in premature rupture of membrane, sever preeclampsia, placenta previa and *etc.* Since the infant mortality rate is one of the important indices for evaluation of health and medication systems and two third of infant mortalities are due to preterm birth we take a decision that study the frequency of preterm labor and viability of preterm neonates in our treatment centers.

Materials and Methods: In this cross sectional study, we evaluated the files of mother and their preterm neonates that hospitalized in Ghods and Ali Ebne Abitaleb hospitals in 1383-86 and our data were analyzed with SPSS software.

Results: The findings of this study indicate that 8.9% of labors were preterm, 32.8% of them were selective and 67.2% were spontaneous. The viability of neonates <28 weeks was 6.5 %, 28-30 weeks was 13.5%, 30-32 weeks was 25.6%, 32-34 weeks 53.8%, 34-37 weeks 81.8%. From total viable neonates 67.1% have spontaneous and 32.9% have selective preterm labor.

Conclusion: The frequency of preterm labor in our center is the same as other centers but the lower viability of preterm neonates is an important problem that must be evaluate and resolved by our health and treatment system.

Key words: Preterm Labor, Viability of preterm neonate, Preeclampsia.

P-13

The influence of sperm morphology, total motile sperm count of semen and the number of motile sperm inseminated on the success of intrauterine insemination

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Introduction: To analyze the prognostic value of sperm morphology and total sperm motile count of semen and the number of motile sperm inseminated on the out come of IVF.

Materials and Methods: In this study 445 women, who underwent 820 IUI cycles, were admitted to University Hospital. Intrauterine insemination, with husband's sperm after swim performed after controlled ovarian hyperstimulation with clomiphen citrate and HMG IUI was performed after HCG injection.

Results: pregnancy rate (PR) per cycle in correlation to sperm morphology, total motile sperm count and the number of motile sperm inseminated was recorded. A total of 81 clinical pregnancies were obtained, for a pregnancy rate per cycle 9.9%. When the total motile count (TMS) was 5-10×10⁶, the pregnancy rate per cycle was significantly higher (48.1%) than in any of the subgroups with TMC <5×10⁶ and TMC>10×10⁶ (p=0.001). Sperm morphology was in itself a

significant factor that affected the likelihood of IUI success. Nonetheless the most different of the PR per cycle was in the subgroup with sperm morphology <5% (p=0.017). Number of inseminated motile sperms ≥10×10⁶ was significantly higher than the other groups (p=0.026). In this analysis, duration of infertility and ovulation significantly affected the result of IUI, but not age of women, men and kind of infertility.

Conclusion: Our results show that 5-10⁶ motile spermatozoa and sperm morphology ≥ 5% and number of inseminated motile sperms ≥ 10×10⁶ are useful prognostic factors for PR after IUI. IUI performed with higher numbers of motile sperm does not lead to a significant increased in PR per cycle.

Key words: Sperm, Intrauterine insemination, Morphology.

P-14

Placental transfer of CMV-specific IgG in north-east Iranian mothers

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Introduction: Cytomegalovirus (CMV) is a common intrauterine infection and causes sensorineural hearing loss and mental retardation. The prevalence of CMV antibodies varies widely among different populations depending on socioeconomic status (SES-The range of congenital CMV infection varies between 0.2-2.5% of live births. Placental transfer of maternal immunoglobulins is the major route of protection of infants during and after gestation.

Materials and Methods: 250 pregnant women who attended to the Hospitals of Mashhad Islamic Azad University in 2007 were included in this study. Sera were separated from blood sample of mother and umbilical cord blood and stored at -20 °C until use. A commercially available indirect enzyme-linked immunoassay (ELISA) was used for measuring anti IgG in infant and maternal sera. An antibody level of 10 IU/ml was considered positive. Student's *t*-tests for unpaired and paired samples were used to compare the mean concentration of anti-CMV IgG between study groups. Pearsonal test was used for testing the correlation of maternal and neonatal anti-CMV

IgG. Statistical analyses were performed using SPSS for Windows software version 14. ELISA was also performed for anti-CMV IgM to reveal if active form of virus is present in mother or infant.

Table I. Characteristics of patients.

Characteristics	No. of cases
Gestational age	
>37 weeks	217
<37 weeks	27
Unknown	6
Abortion	
No abortion	200
One abortion	35
Two abortions	12
Three abortions	3
Delivery	
Normal vaginal	75
Cesarean section	170
Unknown	5
Blood group of mother	
A+	78
B+	69
AB+	17
O+	60
A-	3
B-	7
AB-	6
O-	7
Unknown	3
Total	250

Results: All neonates were negative for CMV-specific IgM. Therefore CMV transmission from infected mothers to their fetal had not occurred. The mean±S.D. of anti-CMV IgG in mother's sera was determined to be 139.2±73.6 IU/ml and mean±S.D. of anti CMV IgG in infant sera was determined to be 138.4±68.1 IU/ml. The Mean cord/maternal ratio of anti-CMV IgG was 1.36±0.32 (range 0.03-3.9) among which 117 pairs had ratios less than 1 and 132 pairs had ratios more than 1. A highly significant correlation was observed between anti-CMV IgG in newborns and their paired mothers (p<0.0001). The mean±S.D. of anti-CMV IgG in fullterm and preterm neonates were 142.2±69 and 118.6±59 IU/ml, respectively. Mann-Whitney test revealed no difference between fullterm and preterm neonates (p=0.1). No correlation was observed between anti-CMV IgG in neonates and parity, abortion, mothers' and neonates' blood groups. However, the concentration of anti-CMV IgG in neonates of mothers with normal delivery was lower than those with cesarian and this difference was found to be significant (p=0.03).

Conclusion: All of mothers were seropositive for CMV and it means that the rate of infection in IRAN is 100%. Seven IgM positive mothers were found, namely active form of virus was present in

these mothers but inspite of this no transfer happened in their embryos because all infants were seronegetive for igM. It seems because of wide spread infection between mothers, there are mechanisms that prevent embryo infection. Infants had no clinical problems and malformations and this confirms loss of viral transfer through placenta.

Key words: CMV, Anti-CMV IgG, Anti-CMV IgM, Congenital abnormality.

P-15

Suppressive antibacterial therapy with metronidazol vaginal gel to prevent recurrent bacterial vaginosis

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Introduction: To evaluate safety and efficacy of suppressive vaginal metronidazol in reducing recurrent symptomatic episodes of bacterial vaginosis.

Materials and Methods: A prospective study in women with history of ≥2 episodes of recurrent bacterial vaginosis was established. After treatment, they were assigned to receive twice weekly metronidazol vaginal gel or placebo for 16 weeks and off therapy for 24 weeks.

Results: Of 178 eligible women with recurrent bacterial vaginosis, 120 patients were assigned. During study, bacterial vaginosis occurred in 15 women (25%) receiving metronidazol and 30 cases (50%) receiving placebo (RR: 0.4, p=0.001). During total 40 weeks follow up, recurrence occurred in 30 patients (50%) on treatment compared with 37 women (61%) on placebo (RR: 0.5, p=0.025). Probability for remaining cured was 70% for metronidazol compared with 42% on placebo. Secondary candidiasis occurred significantly more often in study group (p=0.2).

Conclusion: Suppressive therapy with twice-weekly metronidazol achieves a significant reduction in recurrence rate of bacterial vaginosis.

Key words: Suppressive therapy, Metronidazol, Bacterial vaginosis.

P-16

Transvaginal cervical length and Bishop score value in predicting successful labor induction

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Introduction: This study was conducted to explore the value of transvaginal ultrasonographic cervical length measurement, in addition to gestational age, maternal age, parity and Bishop score in predicting the mode of delivery in pregnancies in which labor is induced with oxytocin at or beyond the 37th gestational week.

Materials and Methods: A total of 148 pregnancies at 37 to 42 weeks of gestation were included. When the labor was induced with oxytocin, 88 women delivered vaginally and 60 underwent cesarean section. These groups were compared with respect to possible predictive parameters of delivery outcome. Student's *t*-test, *chi*-square and Receiver operating characteristics (Roc) curves were used for statistical evaluation.

Results: Mean preinduction cervical length was 24.5 ± 7.92 mm. Seventy three percent of women were nulligravid and 27% of them were multigravid. Analyses of the Roc curve for cervical length and Bishop Score indicated that both of them were predictors of cesarean delivery with optimal cut offs for predicting cesarean delivery of >20 mm for cervical length in nulligravid and >30 mm in multigravid and Bishop score ≤ 4 . Cervical length in nulligravid to compare with multigravid had sensitivity (82.4% vs. 53.4%) and specificity (69.4% vs. 66.7%).

Conclusion: Transvaginal ultrasonography, for cervical length measurement in nulligravid, Bishop Score and parity, predict the success of labor induction.

Key words: Parity, Oxytocin, Transvaginal ultrasonography.

P-17

Evaluation of frequency of leukocytospermia and its correlation with semen parameters in patients referred to Kashan Infertility Center during 2007-2008.

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Introduction: Infertility is defined as the inability to conceive after 1 year of unprotected sexual intercourse. In 40% of infertile couples, a male factor is involved. A probable cause of male

infertility is leukocytospermia, which may be associated with poor sperm parameters. This study was carried out to determine frequency of leukocytospermia, and evaluate its correlation with sperm concentration, motility and morphology in infertile men.

Materials and Methods: We retrospectively reviewed semen analysis of 150 infertile men referred to Kashan's Infertility Center during 2007-2008. Frequency of leukocytospermia (semen $WBC > 0.25 \times 10^6/m1$) and its correlation with sperm concentration, morphology and motility was investigated. Seminal WBC concentration was determined by peroxidase method. Samples were grouped as with and without leukocytospermia based on $WBC > 0.25 \times 10^6$ threshold. Sperm parameters as well as age, job and rate of smoking were compared in these two groups by *Chi*-square, Fisher's analysis and *t*-test.

Results: Mean age of these 150 infertile men was 28. 126 patients (84%) were nonsmokers. 33 patients (22%) had leukocytospermia. Leukocytospermia was not correlated with age or smoking. In leukocytospermia patients, 29 (88%) had sperm concentration $> 20 \times 10^6$; 21 (64%) had sperm motility $> 50\%$, and 5 (15%) had sperm morphology $> 40\%$. In nonleukocytospermic patients, 100 (85%) had sperm concentration $> 20 \times 10^6$; 105 (90%) had sperm motility $> 50\%$, and 13 (11%) had sperm morphology $> 40\%$. Leukocytospermia was not correlated with sperm concentration or morphology ($P \approx 1.00$, $P = 0.743$, respectively); but significantly correlated with motility ($p = 0.001$).

Conclusion: With respect to correlation of leukocytospermia with sperm motility, and important role of sperm motility in fertilization, we can conclude that detection and treatment of leukocytospermia, after excluding genitourinary infection, may have positive influence on fertility and pregnancy rates in infertile couples.

Key words: Parity, Transvaginal cervical length, Bishop Score.

P-18

Survey for effective factors of women fertilization with up to ten-year-old infertility via IUI

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Introduction: Infertility is a difficult problem that gives raise the social difficulty and missing link of principal focus of family. It could be treated when its etiology was distinguished exactly and completely. In this study, the effective factors were studied in fertilized women with up to ten years old infertility.

Materials and Methods: This research was a descriptive-cross sectional study, including all women with a history of up to ten-year-old infertility who were referred to fertility ward within 2000-2007. The related clinical and para-clinical data were collected and recorded in special charts and analyzed statistically.

Results: In this study, 26 women were referred to Fertility Ward, seven of which (27%) were up to 30 years old (4:30-33; 2:35-36; 1:37), the history of infertility was up to ten-years (4:10-14; 2:12-14; 1:15), number of follicles was between 2-5 (only one case was with 1 follicle), drug used was: HMG and clomifen (one case was used only clomifen). In all cases, the sperm number was 20 ml/ml with pH=8. The endometrial thickness was between 7-9 mm. The comparison of data between two groups showed that the mothers' age ($p<0.03$) and the number of sperms ($p<0.05$) had a significant relationship with the treatment results.

Conclusion: Cases with a history of ten years of infertility could be treated when their infertility etiologies were distinguished exactly and completely, the maternal age and the number of sperm have important role in fertilization of these cases.

Key words: Fertilization, IUI, Maternal age, Sperm.

P-19

Comparison of the frequency of uterine anomalies between women with 2 and 3 or more miscarriages

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Introduction: Recurrent pregnancy loss is traditionally investigated after three or more consecutive pregnancy losses. Although, there is a trend to start investigation after two miscarriages, data are not available. We sought to compare the

results of hysteroscopy after two and three or more miscarriages.

Materials and Methods: In a Cross sectional study, between 2006 and 2007, 100 patients, attending the Mehr Infertility Institute, Rasht for repeated miscarriages, were selected and divided into two groups; A) group with two repeated miscarriages and B) group with three or more miscarriages, respectively. We assessed hystoscopic findings in two groups.

Hysteroscopy was performed under light anesthesia sedation in an inpatient setting. Main outcome: uterine anatomical abnormalities of uterine, present of polyp or myoma and normal cavity. Statistical analysis was carried out by using SPSS 10 Software with *t*-test and *Chi*-square.

Results: Hysteroscopy was performed on 100 women with recurrent pregnancy loss: group A (67 cases) with women after two miscarriages and group B (33 cases) after three or more consecutive miscarriages. The rate of uterine anomalies didn't differ significantly between groups A: 32 (47.8%) and B: 15 (45.5%), respectively ($p>0.05$). The rate of polyp: 30 (44.8%), septum: 2 (3%) in contrast the rate of polyp, septum and myoma in group B was 6 (8.2%), 1 (3%) and 8 (24.2), respectively ($p>0.05$).

Conclusion: Hysteroscopy may be justified following two spontaneous pregnancy losses because of saving time for treatment in infertile women.

Key words: Hysteroscopy, Recurrent miscarriage, Uterine anomalies.

P-20

Effects of ultra-short metformin therapy on hyperandrogenism, cervical scores and pregnancy rates in clomiphene citrate-resistant women with Polycystic Ovarian Syndrome

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Introduction: To evaluate the short course pretreatment effect of metformin therapy on women with polycystic ovarian syndrome (PCOS).

Materials and Methods: In this prospective, double blind, placebo-controlled study, 72 women

with CC-resistance PCOS were randomly allocated to metformin pretreatment (group 1) or usual treatment (group 2) G1, who received metformin (1500 mg/day) for two weeks followed by a daily dose of 100 mg clomiphene citrate (CC) for 5 days along with metformin. G2 received placebo (three times/day) for the same time period. CC (100 mg/day) was given on the 5th-9th day of the next cycle in both groups. LH, FSH, LH/FSH, testosterone (T), DHEAS, BMI, cervical score and pregnancy rate were measured in both groups.

Results: There was a non-significant decrease in total T, DHEAS, FBS levels and BMI in G1. Only T level changes were statistically significant between two groups ($p < 0.05$). There was a high pregnancy rate and higher cervical scores in G1 than G2.

Conclusion: Metformin therapy decreased T levels and improved cervical sores and pregnancy rate in CC-resistant women with PCOS.

Key words: Pregnancy rate, Metformin, Polycystic ovarian syndrome.

P-21

Evaluation of antiphospholipid antibody syndrome in women suffering from recurrent pregnancy loss referring to Motazedi and Imam Reza Hospital, Kermanshah

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Introduction: Antiphospholipid antibody syndrome is an important risk factor for recurrent pregnancy loss (RPL). The aim of this study was to investigate antiphospholipid antibody syndrome in women suffering RPL referring to Motazedi and Imam Reza Hospital, Kermanshah.

Materials and Methods: 102 cases of RPL (two or more consecutive abortions) and 100 controls (at least one full-term pregnancy without any history of pregnancy loss) were evaluated in this study. All cases and controls didn't have any history of underlying disease. Following history taking laboratory studies including complete blood count (CBC), activated prothrombin time (aPTT), antiphospholipid antibody (APLA), anticardiolipin antibody (ACLA) and VDRL were done.

Results: Mean age was 26.64 ± 5.3 years in RPL group and 30.1 ± 7.24 in controls. Anticardiolipin antibody was positive in 13.7% in RPL group and 6% in controls ($p = 0.066$); these data for anti

phospholipids antibody were 12.7% and 5%, respectively ($p = 0.053$). There was not any significant difference in VDRL false positive test in two groups. Surprisingly, eosinophilia was significantly higher in RPL group than controls (5.9% vs. 0%, respectively, $p = 0.014$). History of pelvic surgery, vaginal infection and infertility treatment were more in RPL group than controls ($p = 0.001$; 0.00 and 0.00, respectively).

Conclusion: Although antiphospholipid antibodies and anticardiolipin antibodies are important risk factors in the pathogenesis of RPL, our study showed no statistical significant difference of these between case and control groups. Nevertheless, autoantibodies against various kinds of phospholipids should be evaluated in selected cases of RPL for appropriate treatment. Eosinophilia in RPL group is an accidental finding that needs more studies to evaluate its significance.

Key words: Recurrent pregnancy loss, Antiphospholipid antibody syndrome, Infertility, PCOS.

P-22

CRP Levels in Women treated with IVF

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Introduction: C-reactive protein (CRP) is a sensitive marker of endothelial activation and inflammation process. The association between an inflammatory state and CRP has prompted research on changes in CRP levels in assisted reproductive technique (ART) cycles. The aim of this survey was to assess CRP levels during IVF stimulation and to correlate them with IVF success.

Materials and Methods: Eighty women, who underwent IVF treatment, were prospectively studied in Fatemiyeh University Hospital, Hamadan University of Medical Sciences during 2007. Women excluded with an autoimmune diseases, recent history of surgical, trauma and infection. levels of serum CRP were evaluated on the following days: oocyte retrieval, embryo transfer and 12 days after embryo transfer. Women with positive β -hCG levels (> 10000 IU) had ongoing pregnancies, confirmed by ultrasound scans served as conceived or successful IVF group.

Results: Seventeen (21%) patients had successful IVF. In comparison to non-pregnant or IVF failure group, CRP levels were significantly lower in successful IVF group. CRP levels were 2.48 ± 2.18

mg/l on oocyte retrieval day, 2.50±1.45 mg/l on embryo transfer day and 1.94±1.39 mg/l 12 days after embryo transfer ($p < 0.001$) in successful IVF group. The CRP levels were not significantly different in each group according to day of sample retrieval ($p > 0.05$).

Conclusion: In women treated successfully by IVF, the CRP concentrations were significantly lower than the non-pregnant group.

Key words: C-reactive protein, In Vitro Fertilization, Assisted Reproduction.

P-23

Fertility reservation in cancer patients

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Introduction: The study was carried out to analyse and give a summary of our experience with the different means of fertility reservation in cancer patients, using conservative methods like injection of Gn-RH. Analoga and antagonists are successful over IVF with subsequent oocyt- and embryo-cryopreservation to more invasive ones like laparoscopic ovarian tissue banking for ovarian cryopreservation. We designed a retrospective cohort study. The study setting was Medical School of Vienna, Department of Gynaecological Endocrinology and Reproduction Medicine. 107 patients underwent different kinds of fertility preservation methods.

Materials and Methods: Fertility preservation counseling is a decision making process for the appropriate method. In case of ovarian tissue, banking describes the intra- and postoperative courses. Main Outcome Measure(s): In case of ovarian tissue making, the operating time, major and minor complications, histological and microbiological results were seen. In case of IVF, the major and minor complications were seen.

Results: 85 patients underwent cryopreservation of ovarian tissue, mostly for malignant diseases (78/85, 91.8%). 60 patients (70.6%) underwent laparoscopy for ovarian tissue harvesting only, without any additional surgical procedure. The median operating time was 30 minutes (range: 10-75 minutes). The intraoperative course was uneventful in these patients. In 2 patients, slight postoperative increases in C-reactive protein levels were found. Microbiological examination revealed

no contamination apart from one case revealing sporadic propionibacterium acnes. Histological examination revealed intact ovarian tissue with primordial follicles in 81/85 patients (95.3%). There was only one case of IVF and embryo cryopreservation. 26 patients were treated only with GnRH analoga or antagonist.

Conclusion: The increasing life expectancy after chemo- and ionization-therapy brings about new aspects into the life of cancer patients. Maintaining the quality of life would be the new issue and challenge in this group of patients. New methods of ART could be offered for this purpose. One of the most promising new therapy options is OTB, which can be performed by laparoscopy. Laparoscopy is a safe and effective procedure for ovarian tissue harvesting. We suggest microbiological and histological testing of ovarian tissue as mandatory tools to guarantee safety regarding ovarian tissue transplantation.

Key words: Oocysts, Embryo cryopreservation, Fertility.

P-24

The effect of oral corticosteroid on ovarian response and pregnancy rate in infertile women, in ICSI cycles

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Introduction: The poor ovarian response to external gonadotropins is one of the common problems in assisted reproductive technology that occurs in 9%-26% of treatment cycles and can cause cancelling of the cycle, achieving small number of oocytes and finally decreasing the pregnancy rate. With beginning of ovarian aging, the ovarian reserve decreases but in the young group also the poor response is seen sometimes. There are several reports about the adjuvant therapy such as taking the high doses of gonadotropins, glucocorticoids and low doses of aspirin to improve the ovarian response.

Materials and Methods: In this study, 140 infertile women, <35 years old underwent the ICSI cycles, were divided into two groups. In group 1 (study group) starting with GNRH-a, two dexamethasone pills and in group 2 (control), two folic acid pills (placebo) were randomly prescribed.

The number of follicles, oocytes and embryos, HMG ampules and pregnancy rate was compared

between two groups. Data were analyzed with SPSS software and *t*-test ($p < 0.05$).

Results: There was no significant difference between two groups regarding the age, hormonal assay results, number of HMG ampoules injected and pregnancy rate, but in dexamethasone group more follicles, oocytes and good quality embryos were achieved, that was statistically significant.

Conclusion: By increasing the oocytes number and good quality embryos, there will be a higher chance of pregnancy and freezing extra embryos for using in next unstimulated cycles.

Key words: ICSI, Corticosteroid, Infertility.

P-25

The evaluation of teaching the infertility treatment strategies to infertile couples and its impact on their anxiety

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Introduction: Infertility is not considered as a psychiatric problem itself, but it can have many emotional and psychological effects on infertile couples. Depression, inability, hopelessness, fatigue, loneliness, isolation, and anxiety are all the adverse effects of infertility in young couples. Different methods for reducing the anxiety in infertile couples, like teaching the infertility treatment strategies, cognitive behavioral therapy, and pharmacotherapy, have been evaluated. The goal of this study is to evaluate teaching the infertility treatment strategies to infertile couples and its impact on their anxiety.

Materials and Methods: This study was done as a before-after clinical trial and 42 people were considered as cases and 40 people were considered as controls. We used the HADS clinical criteria of anxiety and depression for evaluating the anxiety and depression among infertile couples. The intervention group was taught about the infertility treatment strategies through a two-hour face-to-face meeting, with the help of a brochure.

Results: Our results show that teaching the infertility treatment strategies to infertile couples significantly decreased the anxiety among them, which lasted for approximately two weeks after the teaching. This decrease in anxiety did not have a significant correlation with age, sex, and education of the couple, neither with the duration nor the cause of infertility. Teaching did not have any significant effect on decreasing the rate of depression among the couples.

Conclusion: According to the results of this study and the high rate of anxiety and depression among infertile couples, it is suggested that teaching the infertility treatment strategies should be considered as a method to decrease the anxiety among all infertile couples referred to infertility centers.

Key words: Infertility, Infertility treatment, Strategies, Anxiety.

P-26

Assessment of diagnostic capability of serum creatine phosphokinase and its isozyme (MB) in ectopic pregnancy

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Introduction: Our goal was to assess the diagnostic value of CPK and CPK-MB in tubal pregnancy in order to find a simpler diagnostic approach for ectopic pregnancy.

Materials and Methods: This is a prospective study, in which consecutive sampling was done during 20 months in two major hospitals of Isfahan city. Every pregnant patient, in her first trimester of gestation; presented with complaint of vaginal bleeding, abdominal pain, or both, was enrolled in our study, and blood was drawn from her for lab test (CPK, CPK-MB). After diagnosis, they were placed in EP group or non-EP group. Data analysis was done with medcalculate software, diagnostic parameters were determined and also ROC curve for each biochemical marker was plotted.

Results: A total of 106 patients, 53 in EP group and 53 in non-EP group, were enrolled in our study. The results for CPK were sensitivity 69.81%, specificity 64.15%, positive predictive value 66.07%, negative predictive value 68%, PLR 1.95, NLR 0.49. While the CPK-MB results were: sensitivity 71.7%, specificity 56.6%, positive predictive value 62.29%, negative predictive value 66.7%, PLR 1.65, NLR 0.5. Area under ROC curve for CPK was 0.692 and AUC for CPK-MB was 0.647.

Conclusion: Although, there is significant elevation in CPK and CPK-MB serum levels in ectopic pregnancy, transvaginal ultrasonography is still the gold standard diagnostic tool for EP.

Key words: Creatine phosphokinase (CPK), CPK-MB, Ectopic pregnancy.

2- Embryology and Genetics

P-27

Developmental assay of *Stra8* gene expression during germ cell differentiation in embryoid body

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Introduction: *In vitro* germ cell development from embryonic stem cells (ESCs) has provided a new method for the study of germ cell development. Thus, the expression of *Stra8*, being expressed during germ cell development, was studied upon embryoid body (EB) formation and differentiation.

Materials and Methods: CCE mouse embryonic stem cells (ESCs) were counted and 2×10^5 cells were cultured in 6-well microplate. The cells were incubated for 1, 2 and 3 days in DMEM, supplemented with 20% FBS for EB formulation. Cell suspension was prepared from three separate experiments of 1, 2 and 3-day-old EBs and ESCs. In order to investigate the molecular pattern of *Stra8* gene expression, Real-Time quantitative PCR was done for ESCs and 1, 2 and 3-day-old EBs. Data analyses were done with ANOVA and Tukey post-test.

Results: The expression of *Stra8* gene was increased in 1-day-old EB relative to ESCs and in 2-day-old EB relative to 1-day-old EB, but these increases was not significant. *Stra8* gene expression remained constant in 3-day-old EB relative to 2-day-old EB.

Conclusion: Spontaneous differentiation of ESCs into cells of all three germ layers happens during the process of EB differentiation. Primordial germ cells and more mature germ cells were differentiated from these aggregates of cells. Real-time PCR data, using the germ cell-specific marker, *Stra8*, demonstrated that upon EB formation and differentiation, the expression of this gene was upregulated.

Key words: Embryonic stem cell, Germ cell, *Stra8*.

P-28

The comparison of number and diameter of mouse spermatogonial stem cell colonies after co-culture with sertoli and STO cells

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Introduction: Spermatogonial stem cells are unique population of cells with self-renewing potential, and are the only stem cells in the body that transmit genetic information to the next generation and can be cultured for extended periods in the presence of feeder cells such as; sertoli and STO cells. This study aimed to compare the effect of co-culture with sertoli and STO cells on the number and diameter of mouse spermatogonial stem cell colonies to improve an *in vitro* culture system capable of supporting spermatogonial stem cell colonization.

Materials and Methods: The mouse testes were mechanically minced into small pieces and enzymatically digested to separate the cells from seminiferous tubules. Lectin-coated dishes were used for sertoli cell isolation from spermatogonial stem cells. With the formation of a confluent layer of sertoli cells, spermatogonial stem cells were transferred onto feeder layer. Mitomycin C-treated STO fibroblast cell line was used. In control group, spermatogonial stem cells were cultured on a feeder free culture dishes. The number and diameter of mouse spermatogonial stem colonies was assessed after 3 and 7 days of culture by an inverted microscope.

Results: The results of one-way ANOVA and Tukey *post-hoc* test showed significant differences between the mean number and diameter of the colonies between sertoli, STO and control groups in 7th days ($p < 0.05$), however there was no significant difference between these three groups in 3rd day ($p > 0.05$).

Conclusion: The present study demonstrated that Sertoli cells may have more positive influence on the *in vitro* colonization process.

Key words: Testis, Spermatogonial stem cell, Co-culture.

P-29

Effect of main semen parameters on the results of IUI procedure

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Introduction: The aim of this study was to evaluate the effects of three main semen parameters *i.e.* concentration, motility and morphology on outcome of Intra-Uterian Insemination (IUI).

Material and Methods: In this study, 66 semen samples, from subfertile couples referred to Infertility Laboratory of Shahid Beheshti Hospital were evaluated. These couples were candidates for IUI procedure. In order to assess the sensitivity and specificity of three main semen parameters, ROC curves were used.

Results: Our study, showing normal morphology has higher sensitivity and specificity than fast motility and concentration, respectively.

Conclusion: Mean sperm concentration, in the couples, candidates of IUI, is lower than fertile couples. Percentage of normal morphology is the same as fertile couples and percentage of motility after processing is more than fertile couples. Meanwhile fertility in these couples has high correlation with normal morphology.

Key words: IUI, Semen parameters, Pregnancy.

P-30

Effect of LH-treated ovine oviductal epithelial cell co-culture system on murine pre-embryo development

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Introduction: This study was designed to develop a new co-culture system and assess the effect of Luteinizing hormone using sequential media to promote development and increase the quality of 2-cell ovine embryos through the 8-16 cell stage to morula and blastocyst stages.

Materials and Methods: Monolayers for co-culture were prepared from ovine oviduct epithelial cells (OOEC) in DMEM/F12 medium and *in vivo*-fertilized 2-cell embryos were collected by flushing from superovulated NMRI mice. Co-culture media was treated with hCG as a surrogate for LH because of its stability and purity. Embryos were cultured in G1/G2TM (Ver. 5) drops alone and in the presence of LH, as the control groups and on OOEC monolayers in G1/G2TM (Ver. 5) drops

alone and with LH as the experimental groups. Development and quality rates were determined for all embryos daily and statistically compared. At the end of the cultivation period, differentially stained trophectoderm (TE) and inner cell mass (ICM) of expanded blastocysts from each group were examined microscopically.

Results: The embryos, cultured on an OOEC monolayer in G1/G2TM (Ver. 5) drops, were treated with LH had a significantly higher developmental rate than those of the group without LH and the control groups ($p \leq 0.05$). The blastocysts from the LH treated group, in comparison with the group without LH and the control groups, also had a significantly higher mean cell number ($p \leq 0.05$).

Conclusion: These findings suggest that elevated periovulatory LH levels may promote preimplantation embryo development. These results have important implications for assisted reproductive technologies in which co-cultures are used to improve pregnancy rates. Ovine oviduct epithelial cell co-culture system, treated with LH, could improve *in vitro* preimplantation embryo development both in terms of quality (increasing blastocyst cellularity) and developmental rate.

Key words: Oviduct, Luteinizing hormone, Embryo.

P-31

The effects of LIF on mouse preimplantation embryo development

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Introduction: Recent studies have demonstrated that mammalian preimplantation embryos are exposed to a mixture of many different growth factors and cytokines, expressed by the follicles, oviducts and endometrium. Receptors for many of these growth factors have also been shown to be expressed by preimplantation embryos. *In vitro* culture of human and animal embryos, in conventional media lacking growth factors, can result in suboptimal growth and a variety of short-term and long-term developmental abnormalities. One of these factors is leukemia inhibitory factor (LIF). The aim of this study was to evaluate the effects of LIF on the mouse preimplantation embryo development.

Materials and Methods: Six to eight weeks old NMRI mice were superovulated by injection of 10 IU PMSG and 10 IU hCG 48 hours later. The

mated mice were killed 48 hours after hCG injection, oviducts were flushed and two-celled embryos were collected and divided randomly to two groups (Control and treatment). Control medium was HTF and treatment medium was HTF+1000 IU/ml LIF. In each group, the embryos were cultured in an incubator at 37 °C with 5% CO₂ for 72 hours. The state of embryo development was evaluated in 12 hours interval using inverted microscope.

Results: There was not any significant difference in the rate of morulla and blastocyst formation after 36 hours. In comparison with hatching rates, 60 and 72 hours after culture, there were significant difference between control and treatment groups ($p < 0.008$).

Conclusion: LIF doesn't provide obvious stimulation in the early mouse embryo development until morulla stage; however, it has positive effects on preimplantation blastocyst growth, differentiation and hatching.

Key words: LIF, Preimplantation embryo, Mouse.

P-32

The short term effect of psoralen on the levels of sex hormones in mice

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Introduction: Psoralens are photoactivated naturally occurring plant biosynthetic metabolites. These compounds are widely used in the treatment of proliferate disorders and have been shown to be mutagenetic and carcinogenetic. The present study was done to investigate the effects of methoxsalen on the levels of sex hormones in the mice.

Materials and Methods: For this experiment, the female mice were divided into three groups. Control (no injection), Sham (corn oil injection) and methoxsalen group (60 mg/kg *i.p.*, consecutive doses for 15 days). Animals were killed at proestrus phase. Blood samples were collected and estrogen, LH and FSH levels were analyzed by radioimmunoassay. Data were analyzed using one-way ANOVA. Significance was set at $p < 0.05$.

Results: The observed level of estrogen was significantly decreased. There was a significant increase in LH and FSH levels as compared with control group.

Conclusion: According to the results, it could be suggested that the consecutive dose of methoxsalen can exert significant effects on female mice. On the other hand, hormonal variations following short term methoxsalen administration may be responsible for changes in infertility pattern in mice.

Key words: Psoralen, Sex hormones, Mice.

P-33

Effect of fibroblast growth factor on the in vitro development of mouse preimplantation embryos

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Introduction: There is growing evidence that growth factors are known to regulate ovarian function. The objective of this study was to investigate the effects of exogenous fibroblast growth factor (FGF) on the *in vitro* development of mouse preimplantation embryos.

Materials and Methods: Two pronucleous (2 PN) zygotes were obtained from mated female NMRI mice after administration of an *i.p.* Injection of 5 IU Pregnant Mares Serum Gonadotrophin (PMSG) and subsequent human chorionic gonadotropin (hCG) injection. Groups of 2 PN zygotes were randomly placed in T6 medium drops with or without FGF (10, 20, 50 and 100 ng/ml) and were cultured to the hatched-blastocyst stage, and the number of embryos in different stage was recorded under an inverted microscope and compared.

Results: In this study, addition of FGF to embryo culture media promoted the embryonic development from 2 PN to morula, blastocyst and hatched blastocyst stages. The addition of 20 ng/ml FGF to the culture medium significantly ($p < 0.05$) increased the percentage of 2 PN mouse embryos that developed into blastocysts and hatched blastocysts, whereas in the presence of 100 ng/ml FGF, the development rate was significantly inhibited.

Conclusion: Exogenous FGF plays an important role in the development of preimplantation embryo. It can promote embryo development.

Key words: Balstocyst, FGF, Preimplantation embryo.

P-34

Effects of the heated human follicular fluid (hHFF) and MEM- α on the maturation and fertilization of immature mouse oocytes

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Introduction: Induction of *in vitro* maturation and development of immature oocyte is one of the methods that has been frequently used recently in artificial reproduction techniques and has drawn attention of many investigators. This method is especially useful in women who are affected by cancer and polycystic ovary syndrome (PCOS). Despite using many types of *in vitro* media, an appropriate environment has not been reported yet. Present study has been designed to assess the effect of heated human follicular fluid (hHFF), which is similar to *in vivo* environment for oocytes, on the maturation and fertilization potential of mouse immature oocyte.

Materials and Methods: Healthy female mice, aged 4-6 weeks, were sacrificed via cervical dislocation and the ovaries were extracted under sterile conditions. After washing, the separated immature oocytes were divided into three groups: In the first group, 209 immature oocytes were placed in culture medium containing MEM- α , HCG, FSC 20%, and rFSH. In the second group, 203 immature oocytes were put in culture medium contained 100% hHFF. In the third group, 205 immature oocytes were placed in culture medium contained MEM- α , HCG, rFSH, and 20% hHFF. Immature oocytes were placed in an incubator for 24 hours. Then, the stages of oocyte maturation were assessed by invert microscope and mature oocytes in each group were transferred to sperm-contained drops. After 24 hours, rate of two-cell embryos was recorded using invert microscope. Data was analyzed by X2 test.

Results: Oocyte maturation rate in the second group (83.74%) was significantly ($p < 0.005$) higher than first (63.03%) and third (67.31%) group. The difference between first and third groups was not statistically significant. The formation rate of two-cell embryo in the second group (83.17%) was higher than first (47.05%) and third (51%) groups ($p < 0.002$ and $P < 0.01$, respectively). Difference

between first and third groups was not statistically significant.

Conclusion: hHFF could improve *in vitro* maturation and fertility potential of immature oocytes and consequently the formation rate of two-cell embryos in mice, in comparison with MEM- α even supplemented with 20% hHFF.

Key words: Immature oocyte, Follicular fluid, Oocyte maturation, Development.

P-35

Study on the anti-fertility effects of *Physalis alkekengi* in adult NMRI male mice

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Introduction: The population of developing countries is increasing at alarming rate leading to poverty. There is a rapidly growing trend in the consumption of herbal remedies in these countries. Plant therapy can be useful for the control of fertility. *Physalis alkekengi* has a large history of herbal use because of pharmacological characteristics. Therefore, the objectives of this study were to determine the effects of alcoholic extract of *P. alkekengi* on testis structure, sperm characteristics and hormonal levels in adult NMRI male mice.

Materials and Methods: Healthy, adult male NMRI mice were divided randomly into three groups of 10 mice each (control, experimental and recovery group). The effect of alcoholic extract (300 mg/kg/day intraperitoneally injection, for 30 days) of *P. alkekengi* on testis structure, sperm characteristics and levels of testosterone, FSH and LH was studied. We also fulfilled recovery observation for this study.

Results: This study indicated decrease in testes weights and created disorganized germinal epithelium, degenerated and necrotic cells in seminiferous tubules, exfoliated germ cells and presence of a large number of metaphasic cells in their germinal epithelium. The plant extract had antispermatogenic action, demonstrated by decrease in sperm count, motility and increase in sperm abnormalities. The hormonal profile was also influenced by the *P. alkekengi* extract. The testosterone level was significantly decreased. There was an increase in the blood level of LH in experimental group. However, this increase was not significant. Results indicate normal level of FSH in three groups.

Conclusion: We concluded that alcoholic extract of *P. alkekengi* has temporary antispermatogenic properties in adult male mice caused by chemical compounds in *P. alkekengi* and it may be useful to regulate spermatogenesis and male fertility.

Key words: *Physalis alkekengi*, Anti-fertility, Mice.

P-36

Oral morphine consumption inhibits placental development in nine day pregnant Wistar rats

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Introduction: Previous studies indicated that morphine consumption during pregnancy could inhibit embryo development. Present study further evaluated the effects of oral morphine consumption on the placental development in nine days pregnant rats.

Materials and Methods: Female Wistar rats (170-200 g) were used in the present study. Experimental group received morphine (0.05 mg/ml of tap water) one night after mating with male rats. On the 9th day of pregnancy, the pregnant animals were anesthetized with chloroform and the placentas were removed surgically and fixed in 10% formalin. The fixed placentas were processed and stained by H and E method and evaluated for their development. Thickness of layers, number and surface area of lacuna, as well as number of the cells in both maternal and fetal parts of the placentas and the utrian septum thickness were calculated by MOTIC software.

Results: Our results indicated that both maternal and fetal layer thickness were increased in experimental group. In addition, number and surface area of lacuna, as well as number of the cells in both maternal and fetal parts of the placentas were increased in experimental group. In contrast, the utrine septum thickness was reduced in experimental group.

Conclusion: Taken together, our results showed that all placental development indicators were abnormal in experimental group. These abnormalities may be the cause of incomplete development observed in the fetus born by opioid addicted women.

Key words: Placenta, Maternal portion, Fetal portion, Lacuna, Morphine, Rat.

P-37

Acrosomal mouse sperm changes after cryopreservation

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Introduction: The acrosome is a cap-like structure over the half of the sperm's head containing digestive enzymes. During fertilization, the acrosomal reaction is the reaction, which occurs in the sperm acrosome as it approaches the egg. The aim of this study was to find the ultrastructure of sperm after cryopreservation.

Materials and Methods: Spermatozoa were isolated from cauda epididymis of NMRI male mice and divided into control and experimental groups. Cryoprotectant solution was made up of 18% raffinose and 3% skimmed milk in distilled water. After freezing in liquid nitrogen and thawing, the sperm ultrastructural changes were studied.

Results: The results of the electron microscope observation showed the plasma membrane rupture and acrosomal reaction in most of the experimental groups immediately after freezing-thawing.

Conclusion: Cryopreservation can produce some ultrastructural changes in plasma membrane and acrosomal reaction of sperm cells that effects on their fertilization rate after freezing and thawing.

Key words: Acrosomal reaction, Sperm, Cryopreservation.

P-38

Studying the effects of estrogen on spermatogenic disorders induced by cyclophosphamide in mice.

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Introduction: Alkylating agents, especially cyclophosphamide, are high gonadotoxic drugs. On the other hand, there is growing evidence that estrogen plays a role in the regulation of testicular functions. External estrogen has paradoxical effects on spermatogenesis. The aim of the present study was to evaluate the effects of estrogen on spermatogenic disorders induced by cyclophosphamide in mice.

Materials and Methods: In this study, 10 week-old NMRI mice were randomly allocated to six groups:

Group I: Control,

Group II: Sham olive oil,

Group III: receiving 100 mg/kg/week cyclophosphamide for 5 weeks.

Group IV: receiving cyclophosphamide as previous group as well as estrogen 50 µg/kg/day for 10 days.

Group V: receiving cyclophosphamide as previous group but with 50 µg/kg/day estrogen administration for 10 days one week after the last injection.

Group VI: receiving estrogen (50 µg/kg/day) for 10 days.

After 2 weeks, these mice were sacrificed to remove testes. These tissues were fixed by boein and tissue passage processing was performed. Slides were stained by Hematoxylin-Eosin (HandE). Number of all spermatogenic cells, sertoli cells, leydig cells, diameter of germinal epithelium and diagonal diameter of seminiferous tubule were investigated by light microscope.

Results: The light microscopic study of seminiferous tubules showed that the numbers of spermatogenic cells were decreased in all experimental groups. But numbers of sertoli and leydig cells in groups that received estrogen and cyclophosphamide in the same time or received estrogen after cyclophosphamide treatment in the same time were near the control group and in other experimental groups; the number of these cells were decreased.

Conclusion: According to results, receiving cyclophosphamide and estrogen lonely or together caused anti-spermatogenesis effects but when they were injected together, it increased the number of sertoli and leydig cells.

Key words: *Spermatogenesis, Estrogen, Cyclophosphamide.*

P-39

Effect of ethanol on growth and development of two-cell arrested NMRI mouse embryos

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Introduction: Sterility is a worldwide problem. Decreasing the growth and developmental rate of embryo and arresting certain developmental steps like two-cell block, could be the reason of infertility in some couples. Previous study shows that arrest and retardation in embryo development can be produced by low temperature exposure. The aim of this study was to evaluate the activity and extent of ethanol as an activator of cleavage and developmental rate of arrested two-celled embryos.

Materials and Methods: The 4-6 week old female mice were coupled with male mice following superovulation and positive vaginal plaque. The mice were killed 48 hour after hCG injection by cervical dislocation. Two cell embryo were collected in RPMI medium and divided and cultured (in M16 medium) in three groups. The 2nd and 3rd groups were exposed to 4 °C for 24 hour in order to delay and arrest for cleavage and developmental rate. The 2nd group was incubated immediately, while the 3rd group was exposed to 0.1% ethanole for 5 minutes and the 1st group was incubated without any exposure to low temperature (control group).

Results: The data analysis by one-way ANOVA show that the developmental rate of embryos exposed to low temperature (4 °C) significantly decreased (p=0.001) producing retardation and arrest. The mean cleavage rate between groups were not significantly affected, but the mean percent of degenerated embryos between groups have significant differences (p=0.006). On the other hand, the mean percentage of morulla is significantly different between groups (p=0.005) similarly the mean percent of blastocyst and hatched blastocyst have significant differences between groups (p=0.014 and 0.000, respectively) after 120 hours of evaluation.

Conclusion: Effect of 0.1% ethanol on the arrested two-celled embryos can significantly increase the development upto blastocyst and hatching blastocyst stage related to control group, without any significant effect on cleavage rate and morulla stage.

Key words: *Ethanol, Mouse, 2-celled embryo, Development, Arrest.*

P-40

The role of co-culture systems on development of two-cell mouse embryos against pH fluctuations of culture media

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Introduction: The aim of this study was to determine the effect of pH fluctuations on mouse embryo development and the role of co-culture systems on it.

Materials and Methods: mouse embryos were incubated in 7 different pH solutions from 6.2-8 with approximately 0.4 interval for 3 hours and then were transferred into 4 media with feeder cells; HEF and MEF and without feeder cells; HTF and MEM- α .

Results: No significant difference among the studied pH groups was detected except for pH 6.2 and 8 compared to pH 7.35. Co-culture of embryos with feeder cells improved developmental rate especially at pH 6.2 and 8, which was significantly higher than HTF and MEM- α , respectively ($p < 0.05$).

Conclusion: Mouse 2-celled embryos could tolerate minor pH fluctuations but major pH changes affect subsequent embryo development. In addition, co-culture systems could improve embryo development particularly when embryos are highly affected by rise or fall in pH.

Key words: Mouse embryonic fibroblast, Mouse embryo, Culture media.

P-41

Effect of embryonic fibroblast cell co-culture on development of mouse embryos following exposure to visible light

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Introduction: To determine the effects of visible light on development of mouse embryos and the potential of fibroblast cells to overcome deleterious effects of visible light on mouse preimplantation stage embryos.

Materials and Methods: Two-celled mouse embryos were randomly allocated to un-exposed group (control) and exposed group receiving 1600

lx visible light for various time lengths. Both exposed and un-exposed embryos were co-cultured with either Mouse Embryonic Fibroblast (MEF) or Human Embryonic Fibroblast (HEF). Developmental rate of embryos at 3 (morula), 4 (expanded blastocyst) and 5 days (hatching or hatched blastocyst) was evaluated.

Results: Exposure of embryos to visible light for 30 minutes decreased developmental rate significantly ($p < 0.01$). Developmental rate of exposed embryos co-cultured with (MEF) (58%; $p < 0.05$ both at day 4 and 5) and HEF (67%; $p < 0.01$ both at day 4 and 5) was higher than control.

Conclusion: visible light adversely affects embryos development in a time dependent manner. Feeder cells may enhance embryo development particularly when sub-optimal conditions are involved.

Key words: Mouse embryonic fibroblast, Mouse embryo, Culture media.

P-42

Evaluation of murine integrin and osteopontin ligand expression during oestrous cycle by immunohistochemical technique

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Introduction: The aim of this research was to investigate integrin molecules in mouse endometrial during the various phases of oestrous cycle.

Materials and Methods: The mice ($n=15$), aged 6-8 weeks, were studied in this research. Various phases of oestrous cycle were determined by vaginal smear. Tissues were obtained from the middle 1/3 part of their uterine horns at each phase then the cryosections at thicknesses between 8-10 μ were obtained. Then the immunohistochemistry were done for integrins of α_4 , β_1 , α_v , β_3 and their ligand osteopontin.

Results: The integrins were expressed only in the metoestrous phase of oestrous cycle. The positive reactions were observed for α_v , α_4 and to β_3 antibodies in the apical and basal membrane of glandular epithelium. Also the positive reaction for β_1 antibody was found on the surface and glandular epithelium as well as stroma. The osteopontin expression was seen in the apical membranes of surface and glandular epithelium.

Conclusion: It seems that integrin expression in endometrium is based on their role in the implantation.

Key words: *Integrin, Endometrium, Mouse, Immunohistochemistry, Implantation.*

P-43

The effects of *Vitex agnus castus* L. on spermatogenesis of mice

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Introduction: *Vitex agnus castus* (Verbenaceae) is a phytoestrogenic herb. Therefore it has clinical usage in different countries. In this research, the effects of *Vitex agnus castus* were investigated on the spermatogenesis in male Balb/C mice.

Materials and Methods: Mature male mice were divided into 6 groups: control, sham and experimental (65, 165, 265, 365, and 465 mg/kg of seed extract). Mice were weighed and dissected after 10 days of intraperitoneally injections and the left testes and epididymis were excised. The caudal part of the right epididymis was used for sperm counting. After macroscopic investigation (weight, small and large diameter and volume of testes), tissues were fixed in Bouin's fixative. Sections were cut at 7-8 μ m and stained with HandE.

Results: In this investigation, no significant difference in body weight, volume, weight and diameter of testis were seen. Studies showed a significant reduction in germinal epithelium in doses of 265 and 365 mg/kg and increase of interstitial tissue area in doses of 265, 365, and 465 mg/kg. There was no significant difference in epithelium thickness and diameter of epididymis. Testis showed a general disarrangement in various germinal elements of seminiferous tube. Result of sperms count indicated significant sperm decrease in 265 and 365 mg/kg doses.

Conclusion: *Vitex agnus castus* contains essential oils, iridoid glycosides, flavonoids diterpenes and essential fatty acids. Its contraceptive effects are suggested in relation to flavonoids and essential fatty acids.

Key words: *Mice, Spermatogenesis, Vitex agnus castus L.*

P-44

Ultrastructural study of endometrial maturation immediately before implantation in mice after ovulation induction and treatment with progesterone or Viagra

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Introduction: Due to relatively low implantation rate in ART, the acceleration of endometrial maturation in ART cycles is highly investigated. Progesterone has been used for this purpose. Since to histological characteristics are considered as a criterion for evaluation of endometrial maturation, the aim of the present study is to compare morphological and morphometrical characteristics of mouse uterine endometrium, at preimplantation stage, following progesterone and Viagra administration.

Materials and Methods: Forty adult female mice were divided into 4 groups as: control, gonadotropin, gonadotropin+progesterone and gonadotropin+Viagra. In all 3 experimental groups, the mice received 7.5 IU HMG followed by HCG. Then every two female mice were mated with the male mouse. In two groups (from 3 experimental groups), 1mg/mouse progesterone and 3mg/kg Viagra was administered at 24, 48, 72 hours intervals after HMG injection. Ninety six hours after HMG injection, the mice in 4 groups were sacrificed and their uterine specimens were prepared for light and electron microscopic studies.

Results: Morphological study of electron microscope demonstrated that all groups differed from each other. It was also revealed that gonadotropin+Viagra and only gonadotropin receiving groups developed pinopodes greater than other groups. Furthermore, in gonadotropin+Viagra group, the supranuclear secretory granules were numerous than the other groups.

Conclusion: Ovarian superstimulation followed by progesterone or Viagra injection alters the morphological indices of luminal epithelium of endometrium, which could affect its maturation.

Key words: *Implantation, Progesterone, Viagra, Endometrium, Electron microscope.*

P-45

Effects of different doses of Leukemia inhibitory factor on IVM and cumulus expansion of mouse oocytes

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Introduction: Leukemia inhibitory factor (LIF) is a pleiotropic cytokine of interleukin-6 family with a remarkable range of biological actions such as; proliferative effects on the granulosa and theca cells.

The aim of this study was to assess the effects of different doses of LIF on GVBD and MII development rate and cumulus expansion.

Materials and Methods: Immature mice were superovulated with PMSG to obtain GV oocytes from their ovaries 48 hours after the ovulation. The GV oocytes were cultured in TCM199 with 100, 500 and 1000 µg/ml LIF. Cumulus expansion was analysed with two examiners and the number of MII oocytes were recorded. For denuding the oocytes, hyaluronidase was used.

Results: Our results showed that rate of GVBD and MII development increased in groups with LIF as compared to control group. Rate of MII development with 1000 µg/ml LIF was significantly higher than control group ($p < 0.05$). Cumulus expansion in the group with 1000 µg/ml LIF improved significantly as compared to control ($p < 0.05$).

Conclusion: Our results showed that LIF could improve IVM rate in dose dependant manner. Also, cumulus expansion improved in the group treated with LIF and increased oocyte quality.

Key words: LIF, IVM, Cumulus expansion, Mouse.

P-46

Histologic and steriologic study of ovary after the administration of different doses of cyclophosphamide

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Introduction: Anticancer drugs insert their effect through inhibiting cell division or inducing apoptosis. Since cell proliferation is involved in folliculogenesis, one of the side effects of anticancer drugs is disturbing folliculogenesis. The aim of the present study is to investigate the effect of different doses of cyclophosphamide on folliculogenesis of adult female mice.

Materials and Methods: In the present study, 40 female Balb/c mice, aging 6-8 weeks, were used. The mice in 3 experimental groups received 15 injections of cyclophosphamide as 0.3 mg/day, 0.6 mg/day, and 0.9 mg/day. The mice in control group only received the solvent. 15 days after last injection, the animals were sacrificed and ovarian specimens were processed for light microscopy. The serial sections were stained with HandE and studied with light microscope. The stereologic study was carried out using a computerized microscope and Motic software. The data were statistically analyzed using ANOVA.

Results: Histological studies showed that the number of corpora lutea and follicles at different developmental phases decreased in experimental groups in comparison to control group. Histomorphometric and stereologic studies showed that the mean number of preantral follicles in an ovary of control group was 142 ± 8.6 and in experimental groups 1, 2 and 3 were 104 ± 10.7 , 76.6 ± 8.5 and 42.4 ± 6.5 , respectively, which was significantly different from the control ($p < 0.05$). The number of antral follicles in control group was 52.6 ± 10.7 and in experimental groups (1, 2 and 3) were 22.5 ± 5.4 , 10 ± 2.6 and 3.2 ± 1.8 , respectively, which was significantly different from control ($p < 0.05$).

Conclusion: According to the data obtained in the present study, the daily doses of 0.3-0.9 mg cyclophosphamide for two weeks, cause reduction in follicular number and ovulation in a dose dependent manner.

Key words: Ovary, Cyclophosphamide, Cancer.

P-47

The effect of oxamate on fertilization capacity of mouse sperms *in vitro*

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Introduction: The world outrageous of population leads up to the development of various methods to

prevent pregnancy. Some of these methods are designed to be based on the enzymes involved in fertilization. LDH-C4 is an isoenzyme of lactate dehydrogenase, found in mature testis and spermatozoa of many species. Physiological function indicates that this enzyme could be inhibited by oxamate and its derivative. The aim of this study was to show the effect of oxamate on motility and fertility of mouse *in vitro*.

Materials and Methods: The spermatozoa were extracted from the cauda epididymis, divided into four groups, one as control group in T6 medium and three as test groups in T6 medium, containing different concentrations of oxamate (10, 20, 30 mM, incubated for 90 minute for capacitation and their motility was checked. To obtain oocytes, the mice were super-ovulated with PMSG and hCG. The number of 600 oocytes were collected and divided into four groups in T6 medium droplets. For fertilization process, they received spermatozoa from different groups as mentioned above. After 6-8 hours, the fertilization rate was checked.

Results: Our results indicate that oxamate, at the concentrating of 20 and 30 mM, reduces motility and fertility. Statistical analysis showed that percentage of motility in both concentration of 20 and 30 mM was significantly different from control group and the 10 mM concentration group ($P < 0.05$). The same results were obtained for fertility as well.

Conclusion: These findings suggest that oxamate has an inhibitory role on motility and fertility of mouse *in vitro*.

Key words: Sperm, Oxamate, Fertilization.

P-48

The effects of trifluralin on LH, FSH and testosterone levels and histological changes of testes in adult rats

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Introduction: Trifluralin is a dinitroaniline herbicide, used widely in agriculture. It enters plants through developing roots and stops plant cells from division and elongation (meristemic inhibitor). Extensive application of trifluralin to control the annual grasses and broadleaf weeds in

agriculture, horticulture and home garden, leads to environmental pollution and its entrance into the food chain could have determined effects on human and other species. In this research the effects of trifluralin on reproductive parameters of the male Wistar rats, including serum LH, FSH, testosterone levels, and changes in testicular tissue and body weight were investigated.

Materials and Methods: For this purpose, 250 (5g) male Wistar rats (n=40) were randomly divided in 5 groups, to include control, sham (received normal saline as a solvent), and three experimental groups receiving 500, 1000 and 2000 mg/kg oral trifluralin, respectively. After 16 days, body and testis weights were measured and blood samples were taken from heart and used for the measurement of LH, FSH and testosterone levels. To evaluate histological changes, testes were removed, weighed and after obtaining tissue section, stained by HE.

Results: Serum testosterone, FSH and LH levels showed significant decrease in experimental groups ($p > 0.05$). There was significant decrease in the number of germinal and somatic cells of experimental group testes. There was also a significant decrease in body and testis weight in experimental groups, as compared to control.

Conclusion: It can be concluded that oral administration of trifluralin could decrease gonadotropin and testosterone levels and this herbicide could have hazardous effects on testis tissue as well.

Key words: Rat, Trifluralin, Testosterone.

P-49

Investigation of the methylation status of BAX CpG Island in the endometrium of patients with unexplained infertility

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Introduction: DNA methylation in CpG Islands of higher eukaryotes has important roles in epigenetic regulation of genome. Unexplained infertility is a diagnosis of exclusion, when the standard investigation of both the female and male partners has ruled out other infertility diagnoses. Apoptosis has been shown to be a pivotal regulator of endometrial function during the menstrual cycle and implantation. In this study, we investigated the

role of aberrant DNA methylation in *BAX* gene promoter (which regulates spontaneous apoptosis) in unexplained infertile women.

Materials and Methods: The endometrial tissues were collected from 5 unexplained infertile and 5 fertile women. Methylation was examined by methylation specific PCR (MSP-PCR)

Results: Endometrial tissues in unexplained infertile women showed hypermethylation in *BAX* gene promoter compared with the fertile group.

Conclusion: Increased *BAX* gene promoter methylation ratio can influence infertility or vice versa.

Key words: Apoptosis, Methylation, Endometrium.

P-50

Effects of freezing and thawing on sperm plasma membrane glycoconjugates: a preliminary study

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Introduction: Freezing and thawing has some detrimental effects on sperms. Molecular changes on the sperm surface can have impact on fertility rate. We tested wheat germ agglutinin (WGA), peanut agglutinin (PNA) and Dolichos biflorus (DBA) to detect surface glycoconjugates.

Material and Methods: 45 healthy semen samples were frozen and thawed and sperm smears were prepared before and after freezing and thawing. The smears were stained with the lectins and also with acridin orange. The smears were studied by fluorescence microscopy and the intensities of the reactions to lectins were measured by image analysis software.

Results: The results indicated the reactions of 46.67%, 34.09% and 73.34% of the specimens modified to PNA, WGA and DBA lectins respectively, after freezing and thawing. The cryopreservation caused both increase and decrease of the intensities of the reactions. It means that there are various mechanisms that impact on the carbohydrate contents of the sperm surface.

Conclusion: Cryopreservation affected the surface glycoconjugates at least in a subset of spermatozoa. These results might improve future application of sperm banking techniques.

Key words: Sperm, cryopreservation, Surface glycoconjugates, Lectin.

P-51

Atorvastatin effect on mouse sperm parameters after cryopreservation

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Introduction: Cryopreservation is widely used in ART clinics for many different conditions such as; male problems. Sperm cryopreservation has some technical limitation and decreased sperm motility, viability and fertilization rate. Looking for new technique, drug or natural compound to improve sperm parameters after cryopreservation is under investigation. Statin family (HMG-CoA reductase inhibitor) is widely used as cholesterol lowering and decreasing cardiovascular mortality and morbidity. Attention to these drugs is increasing nowadays. Atorvastatin, a member of statin family shows anti-inflammatory, anticancer and endometriosis treating effects. The aim of present work is to investigate the effect of atorvastatin on mouse sperm motility, viability after cryopreservation.

Materials and Methods: Epididymal spermatozoa, from adult NMRI mice, were collected into DMEM/F12 medium and incubated at 37 °C for 30 minutes. Samples containing 1 ml of the cryoprotectant (18% raffinose and 3% skimmed milk in water) and stored in liquid nitrogen (-196 °C). After one week, frozen samples were thawed rapidly by removing from liquid nitrogen storage and placed into a water bath at 37 °C until all ice crystals are melted after approximately 2 minutes and divided into 4 groups (Control, 0.1, 1 and 10 µg/ml atorvastatin). All the samples were assessed by WHO procedure (motility, viability and morphology). Data were statistically analyzed by one way ANOVA (p<0.05).

Results: There was no significant difference between all control and case groups in sperm motility and viability after cryopreservation.

Conclusions: Atorvastatin did not improve mouse sperm parameters after cryopreservation.

Key words: Atorvastatin, Cryopreservation, Mouse sperm, Motility.

P-52

A novel reciprocal translocation t(X; 7) in a child with development delay

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Introduction: Here, we report a novel translocation with breakpoint that has never been reported before.

Materials and Methods: Lymphocyte cultures from the patients were set up in RPMI1640 supplemented with 20% FBS. High resolution chromosome banding was performed in all subjects.

Results: A 5 year old girl was referred to our laboratory because of developmental delay. Chromosome study revealed an apparently balanced translocation between chromosome X and 7. Her karyotype was accessed as 46, XX, t (X; 7) (q13; q32).

Conclusions: To our best knowledge, this breakpoint has never been reported before and may have some of the genes, responsible for normal development, residing here.

Key words: *Development Delay, Lymphocyte, Chromosome.*

P-53

Report of a familial inversion

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Introduction: A couple was referred to us for chromosomal study due to having a child with growth delay.

Materials and Methods: Lymphocyte cultures from the patients were set up in RPMI1640 supplemented with 20% FBS. High resolution chromosomal banding was performed in all subjects.

Results: In all cells, an inversion on the p arm of chromosome (1) of both husband and wife was detected. The karyotypes were assessed as 46, XX, inv. (1) (p31; p34.3) and 46, XY, inv. (p31; p34.3).

Conclusions: Therefore the chromosomal study was recommended for their affected child. Interestingly the same inversion was found for the affected child and indeed one of the sisters of this male patient had the same inversion. The phenotypic abnormalities presented in this child could be caused by the possible deletion of the

important genes located on this regions or it can be just a coincidence. Chromosome study for all the siblings of this couple was recommended. In addition prenatal diagnosis for the future pregnancies of the all the carriers of this inversion was recommended.

Key words: *Familial inversion, Growth delay, Deletion.*

P-54

A novel reciprocal translocation t (11; 22) in a woman with familial marriage: case report.

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Introduction: In this report, we observed a novel translocation t (11; 22) (q24; q12). The couple was referred to our laboratory for chromosomal studies because they intended to have a baby.

Materials and Methods: Lymphocyte cultures from the patient were set up in RPMI1640, supplemented with 20% FBS. High resolution chromosomal banding was performed in all subjects.

Results: This situation is rare in its kind and we are one of the scant groups observing this.

Conclusion: There was a history of a child who died by a kind of pulmonary disorder. There weren't any genetic problems in their family. In the chromosome study, we observed a translocation t (11; 22), So her karyotype was reported as below: 46, XX, t (11; 22) (q24; q12). Her husband's karyotype was normal.

Key words: *Translocation, Lymphocyte, Chromosome.*

P-55

Cytogenetic as a simple tool for sex reversal study

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Introduction: Advance in experimental endocrinology, biochemistry, genetics, and

molecular biology have all contributed to our understanding of the process of human sex differentiation in the decades. Based on the recognition of the underlying anomaly in the process of sexual differentiation, intersex disorders may be divided into abnormal gonadal determination and abnormal genital differentiation males with ambiguous genitalia but two differentiated testis are called MPH. Females with ambiguous external genitalia but normal ovaries and normal internal genitalia are called FPH.

Materials and Methods: Lymphocyte cultures of the patients were set up in RPMI1640 supplemented with 20% FBS. High resolution chromosomal banding was performed in all subjects.

Results: We concluded that simple conventional cytogenetic methods are very helpful to identify male or female with sex reversal in addition molecular cytogenetic technology such as fish and molecular method to investigate the presence or absent of some critical genes such as SRY would be very useful to explain phenotype heterogeneity among sex reversal group male or female.

Conclusion: Abnormal gonadal determination is mainly dependent on sex chromosomal defects that can be detected by cytogenetic analysis or by the DNA probes for genes located on the Y chromosome. The XX males may be divided in to 3 subgroups: 46, XX males with the SRY gene (46, XX males without the SRY gene) and XX/XY mosaics. DAX1 lies on the X chromosome. When it duplicates, it causes an individual who is genetically male to develop physically as a female. During the ten years (from 1997 to 2008), we have reported 46 patients referred for sex reversal abnormality, which was more common in the female group (n=34, 0.7%) as compared to male population (n=12, 0.4%).

Key words: Sex reversal, Abnormal gonads, Cytogenetic.

P-56

A rare deletion in X chromosome in a child with sexual reversal

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Introduction: A baby was referred to our laboratory because of ambiguous genitalia.

Materials and Metethod: Lymphocyte cultures of the patients were set up in RPMI1640 supplemented with 20% FBS. High resolution chromosomal banding was performed in all subjects.

Results: The karyotype was accessed as: 46, X, del(X)(q26). The deletion of this region has not ever reported as a cause for the ambiguous genitalia. Therefore, we think it is important to report it.

Conclusion: Sonographic study had revealed that the baby had uterus and ovaries but the testis wasn't observed. There weren't any history of genetic problems in the child's parent family. In the chromosome study, a deletion was observed on X chromosome.

Key words: Sex reversal, Sonography, Uterus.

P-57

A new Y inversion in a man

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Introduction: A man was referred to us for chromosomal analysis because he hadn't a child. The examined cells showed a balanced inversion in chromosomes Y.

Materials and Methods: Lymphocyte cultures of the patients were set up in RPMI1640 supplemented with 20% FBS. High resolution chromosomal banding was performed in all subjects.

Results: The karyotypes were assessed as 46, X, inv. (Y) (q11.2; 12).

Conclusion: Therefore, the karyotype test was recommended for his brother and father. All of them had normal male karyotype. The abnormalities present in this man could be caused by the possible deletion of same important genes, located on the regions involved in the break points or it can be just a coincidence.

Key words: Y inversion, Karyotype, Chromosomes Y.

P-58

Effects of combined magnetic fields with frequency 10 Hz On human sperm parameters

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Introduction: Although in several investigations, it has obviously been clarified that ELF electromagnetic fields can cause some changes in cellular behavior, it is increasingly clear that determinant parameters of energy (frequency, amplitude, waveform *etc.*) to which the cell is exposed, influence final outcome. The aim was to investigate the effect of magnetic field on sperm parameters such as; motility, morphology and viability.

Materials and Methods: Semen sample were collected from 12 patients after 3 days of abstinence. The samples were allowed to liquefy for 15 minutes at 37 °C before preparation. The experimental group was then placed in the field, while the control group was left intact. The applied fields were pulsed with distance of 6 msec and effective intensity 1 mT and frequency 10 Hz, and constant field intensity was 1 mT in all experiments.

Results: The results indicated that in frequency 10Hz, an obvious increase occurred in quick motility ratio of sperm (1.8 times) after 4 hours. However, the slow motility ratio of sperms decreased by 40% after 2 hours. The maximal effect on sperm's quick motility occurred in frequency 10 Hz after 4 hours. The stimulation ratio on the viability of sperms was statistically significant at frequency 10 Hz after 2 hours of incubation. The sperm morphology was not influenced in any of the fields.

Conclusion: This research showed that magnetic field with frequency 10Hz can influence sperm parameters. The duration of exposure to magnetic field is on important sperm issue.

Key words: Combined electromagnetic fields, Human spermatozoa parameters, Semen.

P- 59

Human endometrium: a special tissue in reproductive studies

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Introduction: Human endometrium is a dynamic tissue with degeneration, proliferation and remodeling under sex hormones control. This tissue has important role in embryo implantation

and reproductive biology. We explain its role and importance in reproductive studies.

Materials and Methods: Scientific texts about human endometrium and introduced and related model: *in vivo* and *in vitro* studies were selected and used.

Results: Human endometrium properties have been used in many clinical and experimental studies such as; cell isolation and two to three-dimensional culture, experimental model, implantation, infertility, endometriosis, cancer and xenograft to animal, also endometrium was used for new drug discovery and cellular and molecular effect recognition.

Conclusion: Despite angiogenesis, remodeling and growth factors and hormonal effect, human endometrium show important role in clinical and experimental studies.

Key words: Human endometrium, Clinical studies, Experimental model.

3- Midwifery

P-60

A study on relationship between migraine and hypertension disorders of pregnancy among women in Kashan Hospitals 2008

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Introduction: To assess possible association of history of migraine with hypertension disorder.

Materials and Methods: This was a retrospective study to compare history of migraine in 90 women affected by PE with 90 women without PE as the control group. They recruited by a nonrandomized consecutive sampling method. Data were collected by a questionnaire including demographic, medical and obstetrics and migraine assessment sections. Data were analyzed using SPSS.

Results: Results showed increased risk of PE in women with history of migraine (Odds Ratio: 2.87; $p < 0.05$). Result demonstrated that migraine history in the case group is 14.4% and in control group is 5.6 %. Gestational age (GA) at delivery and weight of neonate (WN) were significantly lower comparing to control (GA: 37.3 ± 2.6 vs. 38.7 ± 1.3 weeks *t*-test; $p < 0.01$) (WN: 2930 ± 690 vs. 3330 ± 420 ; *t*-test; $p < 0.0$). Cesarean section was more frequent in PE group comparing Control group [$37(42\%)$ vs. $14(15.6\%)$]; *Chi Square*; $p < 0.01$].

Conclusion: Association of migraine with PE is the result of some similar mechanism leading to endothelial dysfunction. Frequent reports of association between migraine and PE in different population suggest history of migraine as a risk factor for PE/GH.

Key words: Oregnancy, Endothelial dysfunction, Hypertension.

P-61

Sevriety of premenstrual syndrome and the factors associated with this

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Introduction: Premenstrual syndrome is characterised by physical and psychological symptoms appearing regularly during the week prior to menstruation and disappearing within a few days of its onset, causing disruption to occupational, family and personal functioning that occurs in 70-90% of women in reproductive ages. 95% of them suffer from "mild" symptoms and 3-10% of women have "severe" symptoms. This study was carried out to determine the severity of premenstrual syndrome and the factors associated with this.

Materials and Methods: This research is an observational study. The units were studied for severity of physical and psychological symptoms and the factors associated with it. Data collection tool was questionnaire including demographic data and daily symptom rating.

Results: The mean age of the sample was 22.20 years with the mean body mass index of 22.59. According to the DSM-IV criteria, 58.8% of units had mild physical symptoms, 38.8% moderate and 2.4% severe. Psychological symptoms in 30.7% of units were mild, 66.1% moderate and 3.2% severe.

Conclusion: "Mild and moderate" symptoms were detected in more than 60% of the sample. There was a statistically significant relation between onset times of symptoms.

Key words: Severity of Premenstrual Syndrome, Physical symptoms, Psychological symptoms.

P-62

The survey of depression rate in infertile women referring to Dezful health centers in 1387

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Introduction: Infertility is defined as 1 year of unprotected intercourse without pregnancy. Infertility has described as a major life crisis, specifically during life of women. Infertility affects on quality of life. Infertility is one of the most psychological problems for women. Infertility increases anxiety and depression in women. The purpose of the present study was to determine depression rate in infertile women referring to Dezful health centers in 1387.

Materials and Methods: This is a descriptive study on 30 women of infertile who came to Dezful Health Centers, women that consented to participant at study. These women interviewed based on a demographic questionnaire and Beck Depression Inventory (BDI). Data were analyzed by using descriptive statistics. All statistical analyses were performed by means of the SPSS-13 software.

Results: The average age of the total participants was 28.3 years old (SD=3.5). The study showed that majority of the women (66.4%) was moderate depression rate. Mild and severe depression prevalence was 14.2% and 19.4%. The mean depression score was 15.3±6.2. There was significant association between marriage duration and mean score of depression.

Conclusion: Our findings suggest that infertility influences on women's depression, hence infertile women's depression screening and infertile women education is recommended.

Key words: Beck Depression Inventory, Infertility, Education.

P-63

Effect of early and late clamping on third stage of labor in Birjand Valiasr Hospital

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Introduction: Management of the third stage of labor, with its unpredictable life-threatening complications has been debated for centuries, and still arouses much discussion. There is some evidence that cord drainage of placental blood may reduce the duration of third stage of labor and the need for manual removal of the placenta.

Materials and Methods: Services of 100 women delivering vaginally were randomly assigned to 2 groups to study, in both groups, early cord clamping was practiced in the control group the

cord was unclamped and the volume of placental blood measured. For each woman the length of the third stage of labor recorded and the rate of post partum hemorrhage in forth stage controlled.

Management of the third and forth stages of labor was by observation. Data were analyzed by SPSS software and evaluated with student's *t*-test and Pearson correlation.

Results: Differences resulting in ($p=0.001$) were considered significant. The two study groups were similar in age, parity, age of pregnancy, social class, length of active phase and second stage of labor, rupture of membrane, mechanism of placental expulsion, but significant difference between media of third stage duration in two groups was noted (5/30 in test group versus 8/50 in control group). And this different was significant. There was no significant difference between groups in the postpartum hemorrhage but 4% of the women in control group required infusion oxytocin in third stage for placental delivery. A significant negative correlate was found between placental bloods volumes drained from the umbilical cord and third stage of labor.

Conclusion: placental drainage of a safe and effective method for prevention of prolongation of third stage of labor.

Key words: Umbilical cord, Late clamping, Placental.

P-64

Survey of the attitude toward contraceptive use and the rate of contraceptive use among the women who referred to the health centers during the first two years after child bear

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Introduction: 585000 women die due to pregnancy complications and unintended pregnancy every year. Using contraceptive methods has a great influence on reducing consecutive and close pregnancies.

Materials and Methods: This is an analytical-descriptive cross-sectional study, which the intention was to determine the attitude and the rate of contraceptive use among the women who referred to the maternal and child centers of Kerman shah during the first two years after child bear. So, some of the health centers were chosen by cluster sampling method and then 260 married

women at reproductive health ages, being attend these centers and from their last delivery had not passed more than two years, were selected by stratified random sampling. The tool of collecting data was questionnaires and completed by researcher after she had introducing herself to the respondent and acquire their agreement to take part the survey. Descriptive and analytical statistics were used to obtain the goals and the data was analyzed by SPSS statistical software, X^2 and Fisher exact test, Student *t*-test, Regression analysis and Pearson correlation coefficient were statistical test which also used. The research findings have been summarized in 52 tables and one diagram.

Results: According to the study 50.4% of the respondents had positive attitude toward contraceptive use during the first two years after their last childbearing and 79.2% of the respondents had used a kind of contraception methods. There was a significant association between the variables ,namely, spouse educational status ($p=0.036$), sexual contact in postpartum ($p=0.000$), the time passed since the last delivery ($P=0.000$), number of pregnancies ($p=0.013$), tendency to conceive again ($p=0.037$), attitude ($p=0.000$), milk-feeding pattern of respondent ($p=0.000$), menstrual cycles ($p=0.000$)}and the rate of contraceptive uses during the first two years after delivery.

Conclusion: In regard to the findings, the attitudes, the beliefs, milk feeding patterns and menstrual cycle of women have a great influence on contraception prevalence rate after delivery, so effective consultation and education of clients play a key role in promoting family planning services.

Key words: Attitude, Contraception, Postpartum.

P-65

Factors relationship with used to from permanent contraception methods in referring to Health Centers in Zahedan.

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Introduction: One difficulty, important in human social is population growth. Irregular growth to culminate equation imbalance in social, political, cultural and economic programs performance is failed, and poverty culture retardation

unemployment in creased. Therefore this study to permanent contraception methods in referring to health centers in Zahedan.

Materials and Methods: Study is descriptive contain 488 sample refer to Central Health Care, which used to from family regulating service in way data collected is questionnaire and interview. For data descriptive, we used tables and graphs.

Results: To show noting cooperation mans in used to from permanent contraception methods. Subjects between 31-40 years of the age were (58%) married. 62/37 were 20 years old and 77.5% of them were going to have baby boy too.

Conclusion: Sesten and Baluchestan have highest amount (41/5%) of pregnancy. Religious and cultural factors are determinant in chosing contraceptive methods. Therefore, to spread this method, aeareness must be increased towards the social attitude.

Key words: Permanent contraception methods, Referring to health centers, Pregnancy.

P-66

The effect of general and spinal anesthesia upon in neonatal Apgar score in elective cesarean section in Zahedan Ali Ebn Abitaleb Hospital 2007

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Introduction: Anesthesia is always accompanied with operation. In cesarean, general or local anesthesia is used to decrease pain during C-section. Local anesthesia has many benefits comparing to the general anesthesia for example: absent newborn hypoxia if blood pressure is not decreased, an awake mother, needs no painless drugs after anesthesia, facility and the relaxation of pelvic and delivery canal. General anesthesia is done when defect of coagulation, hypovolemia or emergency problem occurs. In this study, we compared the effect of general and spinal anesthesia upon neonatal Apgar score at 1 and 5 minutes in elective cesarean section in Zahedan Ali Ebn Abitaleb Hospital.

Materials and Methods: In one randomized clinical trial study, 142 pregnant women were classified into two groups with 71 persons. Pregnant women elected randomly the kind of the anesthesia. All of them had term pregnancy. They had abnormal anesthesia or newborns had anomaly

outcome from this study. We needed information from maternal age and weight, gestational age, cause of cesarean section and after delivery Apgar scores at 1 and 5 minutes was also recorded.

Results: There were significant differences between the two groups for 1 and 5 minute Apgar scores ($p < 0.05$) and spinal anesthesia group had higher apgar scores in 1 and 5 min. Maternal age, weight, mean gestational age, baby weight and reason for cesarean section did not differ significantly between the two groups. First cause to cesarean section in two groups was previous cesarean section and second cause was fetal position.

Conclusion: Our findings indicated that there is statistical difference in two groups in general anesthesia and spinal anesthesia for 1 and 5 minute Apgar scores. Many studies, similar to our study, establish our finding. We suggest that the performance of this study and the experience of anesthesiologist for spinal anesthesia must be increased.

Key words: Anesthesia, Anesthesiologist, Neonatal Apgar score.

P-67

Contraceptive methods in premenopausal women

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Introduction: The late reproductive age begins at 35-40 years of age and ends with the menopause. It is a period when childbearing is associated with greater risks than previously and when there are distinctive contraceptive requirements. Although sexual intercourse becomes less frequent as couples grow older, and fecundity also declines, the probability of pregnancy still exists if contraceptive methods are not used. Purpose of this study is contraceptive methods used in premenopausal women in Yazd.

Materials and Methods: This is a cross-sectional descriptive study with convenience sampling in 4 Health Centers in Yazd and we studied 200 women with over 40 years of age. Individuals have been interviewed and data analyzed with descriptive statistic.

Results: Mean of age for participants was 43.93 ± 3.41 , 12.5% were illiterate, 74% under diploma, 95.5% sexually active. The most common contraceptive methods is tuballigation (30%), after

respectively condom (24%), withdrawal (19%), IUD (10%), vasectomy (8%), OCPs (3%) and only one person used DMPA and other person used cyclofem. About 40% of individuals, who used condom and withdrawal method, were usually abhor of unwanted pregnancy and this affected on their sexual relationships.

Conclusion: 43% of individuals in this community used highly unsuccessful methods and 4% were without any contraception. Although, fecundity declines in this period and efficacy of these methods is better than in early years, but every pregnancy in this age has worse outcome for mother and fetus. The maternal mortality rate in women in their forties is 4 times higher than among women in their twenties. Also continuous fear of unwanted pregnancy affects on their psychological health and sexual relationships. Pregnancy in women of this group is unwanted and the UK official statistics shows that 45% of the pregnancies among women over 40 years are terminated by legal abortion. In this community, only 4% individuals have used hormonal methods although OCPs containing low doses of one estrogen and a progesterone are suitable for healthy, non-smoking women over the age of 35 and WHO declared that the ratio of risk to benefits of contraceptive use in the late premenopause has to be seen in the light of the prevailing risk of maternal mortality. Therefore, advocacy and education for the use of successful methods in premenopausal women must be advert.

Key words: Contraceptive methods, Primenopause, Premenopause, Contraception.

P-68

Women's experience of female infertility

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Introduction: Approximately 15% of all couples in the reproductive ages are involuntarily childless, and infertility is the third cause of divorce in Iran. The purpose of this study was to explore women's experience of female infertility.

Material and Methods: Descriptive phenomenological method was used to determine these experiences. The data was collected by deep interviews with 14 interfile women.

Results: Related to infertility phenomenon, we obtained four general concepts: 1- Personal anxiety, 2- Challenge with communications, 3- Effects of believes and religion, 4- Problems associated with treatment process.

Conclusion: According to our emerging result in this study, it seems that all aspects of infertile women's life are affected by infertility. Thus, designing and accomplishment of consultive and supportive programs play very important roles for giving better cares to infertile women.

Key words: Women, Infertility, Reproductive ages.

P-69

Iranian Women's menarche stories from different ages groups (University students, faculties and retired women

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Introduction: Menarche is a significant milestone in a woman's life and reproductive cycle. For the female adolescent, it is a sharply defined, sudden, and distinct biological event. The goal of this study was to hear and record menarche stories of women from different ages, and thereby to explore salient themes that emerge in their menarche experiences.

Materials and Methods: This is a qualitative study that data collected by focus group discussion. The goal was rather, to attempt to reveal salient differences between women's menarche experiences, in 3 ages groups. By a focus group study that examines how women have experienced menarche at the personal level and in relation to the education, cultural, religious, and societal environment from different places of Iran. ۴۵ women participated in focus group discussions about their menarche experiences.

Results: The analysis of women's menarche stories revealed that women remembered their first menstruation very clearly and vividly. Findings are discussed in terms of similarities and differences in menarche stories of women from different family backgrounds, family education, age and environment.

Conclusion: In the women's menarche stories, it became clear that concerning the feelings experienced at the time of menarche, the importance of a mother's reactions to their daughter's first menstruation, the difficulties of how to coup with this event, the problems associated with managing menstrual products,

making sense of formal education related to menstruation.

Key words: *Qualitative study, Menstruation, Managing menstrual products.*

P-70

Hyperemesis gravidarum: Comparison of two regimens, ondansetron versus prednisolone; a prospective study

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Introduction: To assess the efficacy of Ondansetron versus Prednisolone for treatment of hyperemesis gravidarum

Materials and Methods: Two hundred and fifty women within 6-12 weeks of gestation and persistent nausea and vomiting participated from October 2003 to October 2007 in Parastaran-Shahed Hospital. Patients were assigned by simple randomization to receive either 4 mg Ondansetron or 5 mg Prednisolone daily (n=125) by oral route until they felt better. The severity of nausea and vomiting per day, pregnancy outcome, fetal outcome, and side effects were assessed in both groups.

Results: Ondansetron has shown some advantages when compared with prednisolone in the relief of nausea and vomiting (p=0.021), less need to hospitalization (p=0.02), increased weight gain (p=0.025). There was no difference in pregnancy outcome, fetal outcome, teratogenicity between two groups, but Ondansetron had less side effects.

Conclusion: Ondansetron reduces the symptoms of hyperemesis gravidarum better than prednisolone, and also validates the hypothesis that it leads to rapid and complete remission of symptoms in majority of pregnant women.

Key words: *Ondansetron, Prednisolone, Hyperemesis Gravidarum.*

P- 71

A survey of the association between "Barrier contraceptive methods" and "Length of cohabitation" with the risk of "Pre-eclampsia", A case -control design.

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Introduction: Pre-eclampsia is a major cause of maternal morbidity and mortality, IUGR, preterm birth. According to "Immune maladaptation hypothesis"- a probable theory of this disease-, using barrier method contraceptives or short period of unprotected cohabitations, may be risk factors of it. This study was aimed to determine the possible association between these factors and pre-eclampsia.

Materials and Methods: This was a case-control study, done on 300 women who were admitted in the delivery ward of the "Ta`min Ejtemaee" Hospital in Shahr-e-kord, Iran. They were matched for age categories and interviewed for completing the questionnaires. Data analysis was done by SPSS 14, using descriptive and analytic statistical methods.

Results: Most of the participants, both in the case and control groups were primi gravida and only 20% had a history of one or more abortions. A significant positive association was seen between the total length of cohabitation (marital duration) and the risk of pre-eclampsia (p<0.001), and this correlation remained even after controlling for "parity", as a confounding factor. There was not any relationship between using barrier contraceptives and pre-eclampsia.

Conclusion: The results have challenged the "Immune maladaptation hypothesis" in some aspects and it seems that there may be another explanation for the role of "long cohabitation" as a risk factor in pre-eclampsia, which requires further researches.

Key words: *Pre-eclampsia, Barrier methods, Cohabitation.*

P- 72

Women's experience of female infertility

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Introduction: Approximately 15% of all couples in the reproductive ages are involuntarily childless, and infertility is the third cause of divorce in Iran. The purpose of this study was to explore women's experience of female infertility.

Materials and Methods: Descriptive phenomenological method was used to determine these experiences. The data was collected by deep

interviewing with 14 interfile women. In related with infertility phenomenon we obtained four general concepts:

- 1- Personal anxiety.
- 2- Challenge with communications.
- 3- Effects of believes and religion.
- 4- Problems associated with treatment process.

Results: According to our emerging result in this study, it seems that all aspects of infertile women's life are affected by infertility.

Conclusion: Thus, designing and accomplishment of consultive and supportive programs play very important roles for giving better cares to infertile women.

Key words: *Infertility, Female, Divorce.*

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Violence in infertile women

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Introduction: Infertility is an important problem in reproductive health, known by WHO. Although, this is not a disease, but can cause important emotional disorders. Infertility is a problem, that women suffer from in traditional society. Violence is able to force them emotionally.

Materials and Methods: This research planning was based on latest infertility's textbooks and articles. Failure in motherhood caused stressful status to woman and her partner. Women may also have unpleasant emotional and low self-esteem and depression.

Results: In Iran, we noticed that fertility rate is high and has a noticeable social and cultural status for women. Search of infertility phenomena and failure and its affected agent in treatment influence the mental health of the couple and one of the factors is violence. Domestic violence is common and affects public health. 45% women suffer from it. The survey of National Research Statistics on the domestic violence in Iran showed that 66% of Iranian women suffered from domestic violence.

Conclusion: Infertility is stressful phenomenon that causes violence, stress and anxiety.

Key words: *Infertile women, Violence, Pregnancy outcome.*

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Live experience of sexual relationship in infertility: A phenomenological study

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Introduction: Infertility is a reproductive health concern that affects men and women of all reproductive ages. The World Health Organization (WHO) estimates that, globally, about 8-10% of couples experience infertility in their reproductive lives. Despite fertility treatments have been progress in these decades, lots of couples that is trying to conceive will undoubtedly experience feeling of frustration and disappointment if a pregnancy is not easily achieved. These feeling can affect all the aspect of infertile couple's life especially sexual aspect. Because after a while, couples think that they have sexual relationship to achieve pregnancy and when they could not be successful, their relationship is affected. Despite the fact that various studies have demonstrated the importance of the sexual relationship and infertility, a few of them have explored the whole life experience of being an infertile couple. The aim of this study was to understand and gain deeper insight in to infertile couple's experience during infertility period.

Materials and Methods: eleven infertile couples were interviewed about their experience of infertility. The researchers analyzed the verbatim transcripts using Colaizzi's phenomenological approach.

Results: Six themes emerged. Nineteen sub-themes expanded and clarified the meaning of these themes. Two of those emerging themes were about sexual relationship of infertile couples.

Conclusion: The meaning of these themes shows that infertility has a deep affection on infertile couple's life. After awhile infertile couples can not enjoy from their sexual relationship because the goal of this relation is to achieve pregnancy and when they can not reach their goal, they lose their desire. These finding can help health provider to understand different aspect of infertile couples and helping them for their well-being.

Key words: *Infertility, Live experience, Sexual relationship, Phenomenology.*