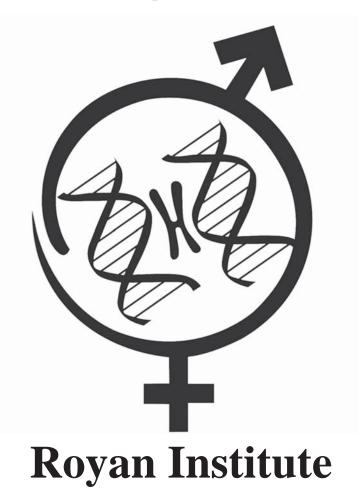
**Abstracts of** 

# **Royan International Twin Congress**

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Reproductive Biomedicine Research Center Tehran, Islamic Republic of Iran

## P-201: Relation between AMH Levels and Ovarian Response in ART Cycles

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**Background:** Ovarian reserve and ovarian response both are of the most important key factors in infertility treatment. Anti mullerian hormone (AMH) is one of lab tests that can predict ovarian reserve. relation between this assay and ovarian response can guide physition to choose the best protocol for the worst reserve.

**Materials and Methods:** In a prospective cohort study, 110 infertile women (21-40 years old) who were candidate for ICSI attending assisted fertility unit,MAHDIEH hospital,TEHRAN,IRAN,from 2011-2012 were enrolled in this study.At first (day 2-4 of mense) serum level of AMH,FSH,ESTRADIOL were checked, then standard long protocol with GnRh agonist and then stimulation with HMG (merional 75 IU, IBSA) started. dose of HMG was based on patient age (standard protocol of our infertility ward). After ovum pickup,number of ocyte and embryo were recorded and 14 day after embryo transfer BHCG was cotroled. Analysis of data was done by using spss version 18 software.

**Results:** The mean of AMH level was 3.9 nmol/ml (0.1-22.1) and mean of oocyte and embryo was11.29 (1-42) and 6.1(0-19) respectively. There was positive correlation between AMH levels and number of ovums and embryos. 9% of all cycles were cancelled because of ovarian unresponsiveness and in this group AMH was <0.67 nmol/ml.regression analysis of data shows that AMH <0.75 nmol/ml was compatible with lower ovarian response(<4 oocyte)

**Conclusion:** AMH level in day 2-4 of non stimulated cycle has positive correlation with ovarian response and AMH<0.75 nmol/ml was compatible with poor ovarian reserve.

Keywords: AMH, Ovarian Reserve, Ovarian Response

## **P-202: An Overview of The Influence of** Trans Fats Compounds on Female Infertility, Pregnancy and Abortion

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**Background:** Lifestyle changes over the years and expanded fast foods and a generally unhealthy diet causes damage to the reproductive potential of women, and the rise of infertility among them as well. Trans fat is one of the unhealthy diet. A small quantity of Trans fat is found naturally in foods usually in animal products but the vast majority of trans fats are artificial and come from the partially

hydrogenated oil found in packaged foods.

**Materials and Methods:** We followed a cohort study of 544 women a history of infertility 2 years as they tried to become pregnant or became pregnant. Retrospective study comparing dietary data on TFAs and total calories from Block 98 quantitative food frequency questionnaire on these women. We evaluated evidence from TFA and CHD risk controlled feeding trials evaluating risk factors and long-term observational studies evaluating clinical outcomes. A dietary score based on these factors previously related to lower ovulatory disorder infertility and other lifestyle information was prospectively related to the incidence of infertility.

**Results:** Studies released show that foods with Trans fats increase 67 percent the risk of ovulatory infertility. Each 2 percent increase in calories from trans fat was correlated with a 73 percent increased risk of ovulatory infertility. 58 percent of babies whose mothers, dietary intake of Trans fatty acids 35/2 grams per day, especially in the second and third trimester of pregnancy were born with high birth weight and approximately 26 percent of these mothers were diagnosed with gestational diabetes.

**Conclusion:** Trans fat consumption, may lead to birth weight. In addition Trans fats cause the negative impact on mother and fetus health. Reports on the harmful action of Trans fats on humans persuasively reveal the need to limit their intake.

Keywords: Trans-fatty Acids, Epidemiology, Infertility, Pregnancy, Abortion

P-203: The Impact of Low-Dose Aspirin on Clinical Reproductive Outcomes in Frozen-Thawed Embryo Transfer Cycles; A Randomized, Placebo-Controlled Double-Blind Study

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**Background:** The objective of this study is to evaluate whether low-dose aspirin affects doppler sonographic parameters of the uterine arteries, endometrial thickness and pregnancy rate of women undergoing frozen-thawed embryo transfer cycles.

**Materials and Methods:** This randomized, double- blind, placebo-controlled trial study was conducted between April 2012, and March 2013. A total of 60 eligible patients (aged 18-40 years) were randomly assigned to the study and control groups by using computer-generated random numbers. Allocation concealment was performed by using sealed envelopes. With the onset of endometrial preparation and estrogen treatment, the study and control groups received 100 mg of oral aspirin or placebo respectively. Doppler ultrasonography also was performed to calculate resistive index (RI) and pulsatility index (PI). The results of treatment cycle were compared in both groups.

**Results:** There were no statistically significant differences between groups with regard to age and basal hormone levels. Both groups were comparable with respect to endometrial thickness on Abstracts of the 15th Royan International Congress on Reproductive Biomedicine

ET day and impedance indices (PI, RI) for both uterine arteries. Compared with placebo controls, aspirin group had a significantly higher pregnancy (p=0.045) and implantation rates (p=0.047). No statistically significant difference was detected in miscarriage rate between two groups.

**Conclusion:** It seems that low-dose aspirin therapy positively affects pregnancy and implantation rates of women undergoing frozen-thawed embryo transfer cycles.

Keywords: Aspirin, Frozen-Thawed Embryo Transfer Cycle, Endometrial Thickness, Reproductive Outcome

## P-204: Relative Frequency of Chlamydia Trachomatis Infection in Infertile Women

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**Background:** The majority of Chlamydia trachomatis infections in women are asymptomatic, but they may give rise to tubal infertility. Screening programmes aim at reducing morbidity in individual by early detect and treatment, and at decreasing the overall prevalence of infection in the population.

**Materials and Methods:** A total of 135 women presenting with a history of infertility(n=113(83.7%) primary infertility, n=22(16.3%) secondary infertility) between 20-40 years of age were consecutively induced into this descriptive-analytic study. Specimens were taken from endocervical canal. C.Trachomatis were detected with polymerase chain reaction (PCR). The data collected in check list and analyzed statically using spss (ver.16).

**Results:** C.Trachomatis was detected in 16(19.3%) of 135 asymptomatic infertile women. The over age of patients was  $31.50 \pm 5.62$  near and the most common age range was 35-40 years. 91.9% of patients were housewives and average duration of marriage was  $6.33 \pm 4.55$  near. 35 patients expressed a positive family history of infertility. 9women(18%) had adhesion in hysterosalpingography. There was no statistically difference between PCR positive results to age of patients, type of infertility, obstructed salpingography, family history and duration of infertility.

**Conclusion:** Genital C.trachomatis is the leading cause of tubal factor infertility. The present study shows that C.trachomatis infection could be present in 19.3% of asymptomatic infertile women. Therefore a screening test for C.trachomatis infection is recommended for all women who refer to infertility outpatient departments in Rasht and perhaps other parts of Iran.

Keywords: Chlamydia Trachomatis, Female, Infertility, PCR

## P-205: Effects of Aerobic Exercise on Plasma Lipoproteins in Overweight and Obese Women with Polycystic Ovary Syndrome

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**Background:** Polycystic ovary syndrome (PCOS) is one of the most frequent endocrine disorders. Obesity and anovulation in

the women affected by this syndrome leads to a type of obesity that is followed by cardiovascular disease, hypertention and cholesterol and lipoprotein improper profiles. Changing the life style, e.g. increasing physical activities is the first approach in controlling PCOS Materials and Methods: 24 women affected by PCOS after medical screening were divided into two groups: Experimental group (n=12) and control group (n=12), with the average age, weight, height, BMI and WHR of 26.87 ± 4.43 years, 75.71 ± 10.65kg.159.29  $\pm$  6.44 cm, 29.86  $\pm$  3.22 kg/m<sup>2</sup> and 91.75  $\pm$  5.86, respectively, First, the body composition such as BMI, WHR, Percent of body fat, weight and body fat mass were measured. Then blood samples from the people under test and HDL, LDL, VLDL, triglyceride and cholesterol were measured. Then the experiment group underwent the effect of an aerobic exercise (a type of physical activity that increases the heart rate and promotes increased use of oxygen in order to improve the overall body condition) program. After 12 weeks all the measured variables before intervension the test were re-measured. Correlated t test was used for comparing the two groups before and after intervension the test and independent t test was used for comparing the two groups (p<0.05).

**Results:** The results showed that after 12 weeks of exercise, BMI, WHR, fat rate, weight and fat mass and triglyceride had significant reduction and HDL had significant increase. But no significant changes happened in LDL, VLDL, and cholesterol levels.

**Conclusion:** In addition to confirming the positive effect of aerobics on body compositions and lipoproteins of plasma, the findings showed that the risk reduction of cardiovascular diseases in obese and overweight people affected by polycystic ovary syndrome is possible by reducing the weight doing aerobic exercises.

Keywords: Polycystic Ovary Syndrome, Aerobic Sport, Plasma Lipoproteins, Body Compositions

## **P-206: Gestational Diabetes Increased** the Astrocytes Density in Cerebellar Cortex of Rat Offspring

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**Background:** Gestational diabetes mellitus affects 3-5% of all human pregnancy. Studies reported the neurotoxic effect of gestational diabetes on cerebellarand spinal cord in rat offspring. This study was conducted to determine the effect of gestational diabetes on astrocyte density in the cerebellum of rat offspring.

**Materials and Methods:** In this experimental study, 30 Wistar rats dams were randomly allocated in control and diabetic groups. Dams in diabetic group received 40 mg/kg/BW of streptozoto cin,intraperitoneallyat the first day of gestation (GD) and control group received an equivalent volume normal saline. Six offspring of gestational diabetic (GDM) and control dams, at the 21, 28 postnatal days were randomly selected and were sacrificed quickly with anesthesia. The coronal sections of cerebellum (6 micrometer) serially collected. The astrocytes were stained with PTAH. The density of astrocytes was evaluated in 20000  $\mu$ m<sup>2</sup> by OLYSIA Autobioreport software.

**Results:** The astrocyte density in apex anddepth ofcerebellum in 21 postnatal days, in the experimental group significantly increased (38.15 and 25%, respectively) in comparison with controls group (apex: