

significantly higher ongoing pregnancy (50 %) and implantation rates (35 %) when compared to Groups 2 and 3 ($p < 0.05$). There were no differences in ongoing pregnancy and implantation rates between Groups 2 and 3. Conclusions: Approximately 25/291 of patients tested had chronic endometritis CD -138 positive, confirming the importance of sampling endometrium in recurrent IVF failures. This pathology may alter the integrity of biochemical milieu in endometrial cavity. Our study suggests that CD-138 immunohistochemistry defines patients who need therapy. Patients with chronic endometritis and negative CD-138 had same ongoing pregnancy and implantation rates in a subsequent cycle when compared to group of patients without any additional information in endometrial findings

Disclosure of Interest: None Declared

O04

THE EFFECTS OF MALE HYPERINSULINEMIA ON IVF OUTCOME

Mahbod Ebrahimi^{*1}, Zahra Shahraki², Athar Rasekh Jahromi³, Firouzeh Akbari Asbagh⁴

¹ IVF Ward, Yas Hospital, Tehran University of Medical Sciences, Tehran, ² Zabol University of Medical Sciences, Zabol, ³ Jahrom University of Medical Sciences, Jahrom, ⁴ IVF Unit, Obstetrics & Gynecology Ward, Yas Hospital, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran

Problem Statement: Combination of sedentary life and high fat/carbohydrate containing diets predisposes a person to elevated serum insulin level and insulin resistance. Raising serum insulin level has been recently suggested to inversely influence on normal spermatogenesis by altering in androgenic hormones profile. Hyperinsulinemia can also contribute to impaired sperm function by increasing in inflammatory chemicals, free radicals, and reactive oxygen species (ROS) production. Higher percentage of poorly compacted sperm deoxyribonucleic acid (DNA) was detected in hyperinsulinemic men. These research evidences prompted us to evaluate the influence of male hyperinsulinemia on in vitro fertilization (IVF) outcomes. Methods: A case-control study was performed on 114 infertile couples who were candidate for IVF program at a university – affiliated IVF Unit, in 2015. The precipitating males were the healthy and normozoospermic men. The participating women were younger than 36 years old with tubal factor as infertility cause and having more than three oocytes in a conventional stimulation programs. The subjects were divided in two groups according to male partner insulin levels; the patients with serum insulin level $\leq 9 \mu\text{IU/ml}$ as the control group ($n = 93$) and the patients with serum insulin levels $> 9 \mu\text{IU/ml}$ as the case group ($n = 21$). The main outcome measures were semen parameters, fertilization rate, number of embryos, embryo quality, biochemical pregnancy rate, and clinical pregnancy rate. Results: There was no statistically significant difference between the groups regarding the demographic data. Two groups did not differ statistically in terms of sperm parameter values including; sperm concentration, motility and morphology ($p = 0.41$, $p = 0.38$, $p = 0.22$, respectively). The fertilization rate of the group with normal serum insulin levels was statistically higher than that of the hyperinsulinemic group (72.12% vs. 43.61%, $p = 0.041$). There was a slight linear association between serum insulin levels and number of embryos ($r = 0.209$, $p = 0.038$). The hyperinsulinemic men had lower embryo quality than control group ($p = 0.013$). Nevertheless, no association were found between serum insulin levels and biochemical pregnancy rates (35.41% vs. 37.23%) and clinical pregnancy rates (26.34% vs. 29.58%) in the case and control groups ($p = 0.453$, $p = 0.764$, respectively). Conclusions: Male insulin levels may influence embryo quality and fertilization rates in an IVF program. In fact, these findings call for greater clinical awareness of adverse effects of male hyperinsulinemia on male reproductive health.

Disclosure of Interest: None Declared

O05

PREGNANCY OUTCOMES WITH DOUBLE TRIGGER COMPARED TO SINGLE TRIGGER IN ANTAGONIST IVF CYCLES

Rhythm A. Gupta^{*1,2}, Ruma Satwik¹, Shweta Mittal¹, Neeti Tiwari¹, Gaurav Majumdar¹, Abha Majumdar¹

¹Department of IVF and Human Reproduction, Sir Ganga Ram Hospital, ²Akanksha IVF Centre, Mata Chanan Devi Hospital, New Delhi, India

Problem Statement: To investigate the effect of using double trigger for final oocyte maturation using combination of gonadotropin-releasing hormone (GnRH) agonist and human chorionic gonadotropin (hCG) on ovarian response, oocyte maturity, embryo quality and implantation rates compared to single hCG trigger in normal responders undergoing GnRH-antagonist in vitro fertilisation/intracytoplasmic sperm injection (IVF-ICSI) cycles. Methods: Study was conducted on 132 women undergoing IVF with antagonist protocol at a tertiary care IVF centre from July 2015 to January 2016. Women aged more than 40 years, serum AMH < 7 or $> 35 \text{ pmol/l}$, evidence of bilateral hydrosalpinx, fibroid or adenomyosis $> 4 \text{ cm}$ were excluded. Women meeting the inclusion criteria were then randomised to two groups; study group $N=66$, who received double trigger which included one dose of GnRH agonist (injection Leuprolide 2 mg subcutaneous) and one dose of rhCG (injection ovitrelle 250mcg) and control group $N=66$, who received single trigger which included a single injection of rhCG 250mcg alone for the same. Randomisation was done by using computer generated random no. sequence for two arm study with equal no. in each group after delivery. Allocation concealment was done by using opaque (serially numbered) sealed envelopes. Ovarian response, oocyte maturity, embryo quality and implantation rates were compared between the two groups. Results were analysed using SPSS. Qualitative data were compared by chi square test and student t test with significant values $p < 0.05$. (CTR REF/2015/12/010314) Results: Mean number of oocytes retrieved were same in the 2 groups (10.77 vs. 10.24 $p = 0.57$) with more mature eggs in double trigger group (76.9% vs 72.6%; $p = 0.14$) in ICSI cycles. The endometrial thickness and embryo quality were significantly better in study group ($p = 0.02$ and 0.049 respectively) and hence significantly better implantation rate and improved pregnancy rate and clinical pregnancy rate in the study group even though they did not reach clinical significance (study group: 76.2%, 32.7%, 29.3% vs control group: 56.28%, 27.59%, 24.13% respectively: $p = 0.03$, 0.54 , 0.18). There was no case of ovarian hyper stimulation in either of the two groups. Conclusions: Double trigger appears to improve implantation rate and clinical pregnancy rate marginally, possibly because of its beneficial effect on endometrial thickness and embryo quality. However, larger studies are required before conclusions can be drawn regarding the routine use of dual trigger in IVF cycles.

Disclosure of Interest: None Declared

O06

PIOGLITAZONE EFFECTS ON OOCYTE AND EMBRYO QUALITY AND PREGNANCY RATE IN RECURRENT IMPLANTATION FAILURE IN COMPARISON WITH METFORMIN IN POLYCYSTIC OVARIAN SYNDROME

Robabeh Taheripanah^{*}, Somayeh Freydounjah
Infertility, IRHRC, Tehran, Islamic Republic of Iran

Problem Statement: recurrent implantation failure is one of the most problems in ART cycles. The purpose was to determine the efficacy of pioglitazone on quality of ovum and pregnancy rate in IVF cycle in comparison with metformin. It seems that pioglitazone is a Peroxisome proliferating activating receptor gamma-independent agent to increase the secretion of interleukin 6 and interleukin 8 secretion from primary endometrial stromal cells. Methods: In this interventional study that was performed as a randomized clinical trial, 149 consecutive infertile women with PCO were enrolled and randomly assigned to receive either 15 mg pioglitazone BD from 6 weeks before treatment or metformin twice a day since six weeks before IVF. Oocyte number and embryo quality and embryo

