

equally by all IVF patients and its utility is likely discounted heavily by patients when nonreimbursed medication costs reach a critical level.

Keywords: GnRH-antagonist, IVF, Patient Cost, Health Economics

O-42: Effects of Intrauterine Injection of Recombinant Human Chorionic Gonadotropin before Embryo Transfer on Outcome of *In Vitro* Fertilization/Intracytoplasmic Sperm Injection: A Randomized Clinical Trial

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Background: To evaluate the effectiveness of intrauterine injection of recombinant human chorionic gonadotropin (rhCG) before embryo transfer (ET).

Materials and Methods: In this randomized placebo-controlled clinical trial, a total number of 182 infertile patients undergoing their first *in vitro* fertilization/intracytoplasmic sperm injection (IVF-ICSI) were randomly assigned to receive 250 µg intrauterine rhCG (n=84) or placebo (n=98) before ET. The implantation and pregnancy rates were compared between groups.

Results: Patients who received intrauterine rhCG before ET had significantly higher implantation (36.9% vs. 22.4%; p=0.035), clinical pregnancy rates (34.5% vs. 20.4%; p=0.044) and ongoing pregnancy rate (32.1% vs. 18.4%; p=0.032) when compared to those who received placebo. The abortion (2.4% vs. 2.0%; p=0.929) and ectopic pregnancy rates (1.2% vs. 1.0%; p=0.976) were comparable between groups.

Conclusion: Intrauterine injection of 250 µg of rhCG before ET significantly improves the implantation and pregnancy rates in IVF/ICSI.

Keywords: Recombinant Human Chorionic Gonadotropin, Intracytoplasmic Sperm Injection, *In Vitro* Fertilization, Implantation Rate, Pregnancy Rate

Genetics

O-43: Nanosilver Impacts The Testicular Tissue by Reducing The GLUT I Expression in Leydig Cells; Correlation with Germinal Cells RNA Damage

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Background: Nanosilver (NS) contains silver nanoparticles to control infections delivered from bacteria. The NS compounds as well as being toxic to prokaryotes are highly toxic to mammalian cells. The present study was evaluated the effect of colloidal NS on leydig cells glucose transporter type I (GLUT I) expression, serum level of testosterone, germinal cells RNA damage and spermiogenesis process.

Materials and Methods: Twenty four mature male mice were divided into four groups (n=6) as test and control-sham groups. The animals in test groups received the colloid NS in doses of 0.5, 1 and 5 mg/kg and the animals in control-sham group received saline intraperitoneally, during 34 consecutive days. The immunohistochemical and Epi-fluorescent analyses were conducted to evaluate the GLUT I expression and germinal cells RNA damage, respectively. The serum testosterone level was assessed by RIA method. The spermiogenesis index was investigated.

Results: The GLUT I expression significantly (p<0.05) decreased in NS-administrated animals. Accordingly, the high dose received mice were manifested with lowest GLUT I on leydig cells. The serum level of testosterone decreased depending on dose. The germinal cells were exhibited with severe RNA damage accomplished with remarkable reduction in the percentage of seminiferous tubules with positive spermiogenesis index.

Conclusion: Our data suggest that NS partly by reducing GLUT I expression on the leydig cells membrane down-regulates the cells glucose intake. Therefore, the leydig cells loss their physiologic ability to synthesis testosterone. Ultimately, the induced impairment leads to severe RNA damage in germinal cells which negatively impacts the spermiogenesis process.

Keywords: Nanosilver, GLUT I, Testosterone, RNA Damage, Leydig Cells

Reproductive Imaging

O-44: Assessment of Endometrial Volume by Four-Dimensional Ultrasound As A Predictor of Pregnancy Outcome in IVF Patient Who Refer to Royan Institute

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Background: To investigate whether endometrial volume on the day of HCG (human chorionic gonadotropin) administration is a predictor of ART (assisted reproductive outcome) outcome

Materials and Methods: Two hundred and seven patients in ART cycle were included in this prospective study; In order to evaluate endometrial volume and its relationship to ART outcome. Endometrial volume ob-