

## 9<sup>th</sup> Yazd International Congress and Student Award on Reproductive Medicine with 4<sup>th</sup> Congress of Reproductive Genetics

### Poster Presentations

**P-68**

**Evaluation the effects of polycystic ovarian syndrome-induced by estradiol valerat on ovaries function, oxidative stress and histological changes in female rats**

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**Background:** Polycystic ovarian syndrome (PCOS) is the most prevalent endocrine disorder of women of reproductive age usually accompanied by polycystic ovarian morphology, hyperandrogenism and anovulation or oligomenorrhea.

**Objective:** The aim of this study is to clarify tissue changes and oxidative stress status in PCOS rats.

**Materials and Methods:** The PCOS rat model was

developed by the once intra muscular injection of Estradiol valerat. Twelve wistar female rats were randomly assigned to two control and PCOS groups. Control group was without any manipulation; PCOS group was administered with Estradiol valerat (4 mg/kg) dissolved in sesame oil (0.2cc); Ovary functional parameters (folliculogenesis, corpora lutea, stage of follicles), SOD activity and MDA levels were measured in ovary samples.

**Results:** Significant changes were observed in ovary functional parameters, ovarian SOD activity and MDA levels in compared to control group.

**Conclusion:** This study showed that due to oxidative stress in ovary, the growth of follicles in the preantral stage, folliculogenesis and the number of corpora lutea were changed in PCOS. Therefore, in PCOS the chance of fertility may reduce.

**Key words:** *Estradiol valerat, Polycystic ovarian syndrome, Oxidative stress.*