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Poster Presentations

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Evaluation of H2S level changes and oxidative stress in the ovary in the polycystic ovary syndrome in rat model

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Background: Polycystic ovary syndrome (PCOS) is one of the common endocrine and metabolic disorders and occurs in reproductive-aged women. Recent findings have shown that hydrogen sulfide, as one of the gaseous transmitters, is involved in the process of egg maturation and follicogenesis.
Objective: In this study, we investigated changes in H2S levels and their relationship with changes in oxidative stress index levels in this disease.
Materials and Methods: Twelve female rats are randomly selected and divided into 2 groups of 6: 1) control 2) PCOS. In order to induce the polycystic ovary, we dissolve 4 mg of estradiol valerate in 0.2 ml of sesame oil , then inject it intramuscularly in a single dose. Ovarian tissue samples were taken after 21 days to measure the level of oxidative stress indices and determine the level of H2S.
Results: In this study, there were observed that after induction of PCOS, the level of H2S and SOD activity in ovarian tissue reduced and the MDA concentration increased compared with the control group.
Conclusion: This study showed that there is a relationship between H2S level and polycystic ovarian syndrome. Measurement of this parameter may be considered as a reliable diagnostic test for patients with PCOS.
Key words: *H2S, Ovary, Oxidative stress.*