9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Poster Presentations

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The effects of soy milk enriched with *lactobacillus casei* on the sexual hormone in ovariectomized rats

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Background: Loss of ovarian function causes estrogen deficiency, followed by menopause and uterine atrophy**.**

Objective: The aim of the present study was to investigate the effects of soy milk Enriched with *Lactobacillus casei* on the sexual hormone, as hormonal replacement therapy in ovariectomized (OVX) rats.

Materials and Methods: Fifty female Sprague Dawley rats were randomly assigned into 5 sets: control, sham-operated, OVX, OVX + soy milk, and OVX + soy milk + *Lactobacillus casei* groups. The soy milk and *Lactobacillus casei* were fed to OVX groups at the concentration of (1×10^9 CFU/ml/day) for 4 wk. Finally, the rate of serum estradiol and progesterone was measured using Elisa reader and the data were analyzed using the SPSS statistical software (V. 23) and Tukey test.

Results: The results showed a significant decrease in serum estradiol, progesterone, in the OVX group compared to the control and sham groups ($p < 0.05$). On the other hand, all the treated groups significantly increased the serum estradiol, progesterone, compared to the OVX group ($p < 0.001$).

Conclusion: The results indicated that soy milk Enriched with *Lactobacillus casei* ameliorate the changes arising from ovariectomy on the sexual hormone as hormonal replacement therapy when ovarian hormones are absent.

Key words: *Soy milk, Lactobacillus casei, Ovariectomy, Rat.*