

The Effect of Cinnamon Extract on Gonadotropin in Changes (FSH& LH) in Rats Treated with Gelofen

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Abstract:

Gelofen is an Anti-inflammatory drug which by Inhibition of Prostaglandin and cyclooxygenase prevents the conversion of Arachidonic acid to intermediate Endo-peroxides and has numerous effects on various tissues of the body. Cinnamon bark has many therapeutic properties; its use strengthens the heart, stomach and intestines, improving Kidney activity. Considering the possible side effects of Gelofen and cinnamon's beneficial effects on the body, the most important objective of the present study is to investigate the effect of Cinnamon on possible side effects of Gelofen in secretion of Estrogen and Progesterone hormones. 42 female Wistar rats were randomly divided into 7 groups. The first group (the control group) was not treated with any drugs. The experimental group 1 and 2 only received 50, 200 mg/kg dosage of cinnamon respectively, the experimental group 3 received only Gelofen with 400 mg/kg dosage and the experimental group 4 and 5 received Gelofen and cinnamon extract with 50 and 200 mg/kg dosages intraperitoneally. At the end of the day 21th, the blood sample was taken from the rats and serum concentrations of estrogen and progesterone were measured. Then statistical data were processed with SPSS version 18 using ANOVA test (One-way analysis of variance), they were determined as significant ($P < 0.05$). The concentration of Estrogen in the experimental group 1 increased significantly compared to control group.

Progesterone concentrations were significantly decreased in the experimental group 3 compared to the control group and the experimental group 1 and 2 ($P < 0.05$). According to the above it can be stated that Gelofen causes a relative decrease in the secretion of estrogen and progesterone hormones by production of hydroxyl radicals and damaging the ovarian tissues, but Cinnamon extract reduces the side effects with its antioxidant properties and effective substances.

Keywords:

Cinnamon; Gelofen; Estrogen; Progesterone; Rat