عنوان مقاله:

The Effect of Hydro-alcoholic Extract of Celery (Apium graveolens) Leaves on Serum Level of Testosterone, FSH and LH in Male Rats

محل انتشار:

مجله علمی پژوهشی دانشگاه علوم پزشکی زنجان, دوره 22, شماره 93 (سال: 1393)

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خلاصه مقاله:

Background and Objective: Celery (Apium graveolens) is a plant from Apiaceae family with high nutritional and medicinal use.This plant has many phytoestrogens that can affect the pituitary-gonadal axis. The purpose of this study was to investigate the effect of hydro-alcoholic extract of celery leaves on serum level of testosterone, FSH and LH in male rats. Materials and Methods: In this experimental study, thirty-two male wistar rats were randomly divided into four groups of eight rats each. The control group did not receive anything. The sham group received distilled water (as a solvent), and the experimental groups received doses of ۲۰۰ and ۳۰۰ mg/kg/ BW of hydro-alcoholic extract of celery leaves for ۲۰ days. The extract was gavaged once a day. One day after the last gavage, the rats were anaesthetized and blood samples were collected from the heart and then serum levels of testosterone, LH and FSH were measured. The data were analyzed using SPSS software and ANOVA test. Results: Concentration of LH in the treatment group with doses of ۲۰۰ mg/kg (۰.۳۹±۰.۰۲ mIU/dl) reduced in comparison with control (۰.۶۷±۰.۰۱ mIU/dl) and sham (۰.۷۳±۰.۰۲ mIU/dl) groups (P<۰.۰۵). No significant difference was observed in serum level of testosterone and FSH hormones in comparison with control group (P>۰.۰۵). Conclusion: The results indicated that the administration of ۲۰۰ mg/kg doses of celery extract causes a significant reduction in serum LH concentration, but it has no effect on ganadotropin and testosterone hormones in highest doses used in this study. This finding may be due to the presence of flavonoid and antioxidant proporties of celery.

کلمات کلیدی:

Keywords: Celery extract, Testosterone, LH, FSH, Rat