



# بیست و یکمین کنگره بین المللی فیزیولوژی و فارماکولوژی ایران

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Title :	The effects of hydro-alcoholic extract of celery (Apium graveolens) leaf on the number of sexual cells and testicular structure in rat
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Abstract :	<p><b>Introduction:</b> Celery belongs to the Umbelliferae family. The leaf and stem of celery contain phenols. One of the main flavonoid of the celery leaf is apigenin. Developed countries are trying to control the population by presenting new methods of pregnancy prevention. Physiological knowledge of the men sexual organ and the effect of some materials on it are important.</p> <p><b>Objective:</b> According to the earlier mentioned effect of flavonoid on spermatogenesis, this research is aimed to investigate the effects of hydro-alcoholic extract of celery on the histological properties of testis and number of sexual cells in rats.</p> <p><b>Method:</b> In this experimental study, 32 male wistar rats were divided into 4 groups. Group 1 (control) didn't receive any treatment, group 2 (vehicle) received propylene glycol (solvent of extract), and experimental groups 3 and 4 received 1 ml hydro-alcoholic extract of celery in doses of 100 and 200 mg/kg.B.W every 48 hours during 20 days by gavage. One day after the last gavage animals were anesthetized. Then, the epididymis and testes were carefully separated. Caudal part of epididymis was used for spermatozoa counting. 5 sections of 5 µm thickness were stained with hematoxylin-eosin method. The sections were used for morphometric (The number of primary spermatocytes, Sertoli cell and lumen volume) and histologic studies. Data were analyzed by the SPSS15 software by using one-way ANOVA.</p> <p><b>Results:</b> The result showed a significant decrease in the number of spermatozoid in doses of 200 mg/kg compared to the control groups (<math>P &lt; 0.05</math>), and the microscopic studying has not shown significant differences between the experimental groups and control group.</p> <p><b>Discussion:</b> It seems that celery reduced fertility and spermatogenesis in male rats but has no destructive effect on testicular structure.</p>
Keywords :	Celery, Testicular structure, Rat, Sexual cells