

البحث السابع

Deterioration of Brain Cell Function Induced by Dapoxetine Administration in Male Rats.

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Abstract

Background and Aim of Work: Dapoxetine is a Selective Serotonin Reuptake Inhibitor (SSRI) decided for the remedy of premature ejaculation (PE) in adult men. The objective of this research was to determine the influence of dapoxetine on the brain of male rats.

Methods: The rats were divided into three empirical groups and one control group of 10 rats each. The empirical groups daily took dapoxetine hydrochloride at doses of 2.0, 4.0 or 8.0 mg/kg (each dose for each group). 1 in 0.5 ml saline for 60 days.

Results: There was a significant elevation in lipid peroxidation level in all treated groups in respect to control group but there was a decrease in total antioxidant level, and elevation in Acetylcholinesterase activity and Vascular Endothelial Growth Factor level in all treated groups compared to control group. The histological brain damage score was zero for all rats in the control group only, it showed increased mean from group II till group IV. The study demonstrated that Apoptotic Index (determined by the immunohistochemistry) was lowest in the control group and increased significantly from group II through IV.

Conclusion: Dapoxetine administration in rats in large doses for a temporal period affected the brain cells and must be carefully used.