An increase in GABA content in Hippocampus of Albino rats exposed to chronic restraint model and treated by Quetiapine for 3 weeks

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Abstract

Quetiapine is a novel anti-psychotic drug. However, there is limited clinical evidence regarding prescribing patterns for quetiapine when used as maintenance treatment for bipolar disorder. Thirty-six albino rats were divided into 3 equal groups: control normal group [1] without exposure to chronic restraint for 6 hours daily/21 days, group [2] received DMSO 5% (v:v), as a solvent of quetiapine, with exposure to chronic restraint for 6 hours daily/21 days and group [3] received quetiapine 10 mg/kg/day i.p. for 3 weeks during exposure to chronic restraint for 6 hours daily/21 days. Intraperitoneal (i.p.) administration of quetiapine at a dose of 10 mg/kg/day for 3 weeks significantly ($p<0.05$) reduces the duration of immobility recorded by the Forced Swimming Test (FST) and significantly ($p<0.05$) increases the contents of GABA neurotransmitter in hippocampus homogenates. The present study adds a positive implication of quetiapine, as an antipsychotic drug, on both the immobility and the reduction of GABA content in hippocampus of albino rats exposed restraint model for 21 days.

Biography

Sahar Mohamed Kamal Shams El Dine has received her MD in basic and clinical pharmacology from Pharmacology Department, Faculty of Medicine, Ain Shams University during the period of May 1997- May 2001. Currently, she is working as Professor of pharmacology in Ain Shams University. Her research has included CNS and CVS experimental work. She is serving as an Editorial Member of several reputed journals like *Journal of Neurological Disorders* & Expert Reviewers for journals like *Journal of Experimental Pharmacology*. She have authored 24 research articles. Her research articles are published on ResearchGate and www.academia.edu.

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