

## عنوان مقاله:

Neurochemical Modulating Effect of Boswellia serrata Roxb. ex Colebr: A Preclinical Research

#### محل انتشار:

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## خلاصه مقاله:

Background: Boswellia serrata has been known for many decades and mentioned in the ancient Ayurvedic texts. Many previous studies have demonstrated its role in depression and anxiety in animal models. Objectives: The present study is carried out to evaluate the effect of Boswellia serrata on neurotransmitter levels of Swiss albino mice by spectrophotometer. Methods: Eighteen (n=1A) Swiss albino male mice were procured for this study. All mice were divided into three groups of six mice in each. The first group of mice (control) received normal saline (1. mg/kg); the second group (standard) received imipramine (1. mg/kg), and the third group (test) received Boswellia serrata (1... mg/kg) orally for Y1 days. On the YYnd day, all mice were sacrificed as per CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals) guidelines. The mice brains were dissected, and their brain tissue was collected and stored in a preservative. The mice brain tissue was centrifuged, and samples were used for the estimation of serotonin (Δ-HT), Acetylcholinesterase (AChE), dopamine, Gamma-Aminobutyric Acid (GABA), and glutamate levels by spectrophotometry. Results: The levels of neurotransmitters are expressed in Mean±SE. Analysis of results was done by 1-way ANOVA and Tukey Kramer tests. The statistical tests revealed that imipramine-treated mice have significantly increased the levels of AChE, GABA, and glutamate when compared to control (P<0.04). However, imipramine treated group showed statistically significant lower levels of 6-HT and dopamine levels when compared to the control (P<...a). Similarly, the test drug Boswellia serrata-treated group had significantly higher levels of  $\Delta$ -HT, AChE, GABA, and glutamate when compared to the control group (P<0.0) and lower levels of dopamine when compared to the control (P<0.04). Conclusion: The present study establishes the role of Boswellia serrata in various psychiatric disorders like depression and anxiety in animal models by modulating multiple neurotransmitters in .the brain

# کلمات کلیدی:

Antidepressive agents, Boswellia, Neurotransmitter agents, Serotonin, Gamma-aminobutyric acid

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