

Original Article

Antidepressant like Property of *Hyoscyamus niger* Linn. in Mouse Model of Depression

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Abstract

Aim: *Hyoscyamus niger* (*Solanaceae*) has been used for treatment of mental disorders, epileptic mania, chronic dementia with insomnia. However, it is not yet studied in condition like depression. The present study was planned with an objective to evaluate its antidepressant like property in animal models of depression and to find out the possible mechanism underlying this action in mouse model of depression. **Materials and methods:** Antidepressant activity was studied in forced swim test (FST) and tail suspension test (TST) in mice. Locomotor and anxiolytic activity was also studied. *Hyoscyamus niger* ethanolic extract was administered to mice by oral route at dose of 25, 50, 100, 200 and 400 mg/kg for 14 days. Further an interaction of *Hyoscyamus niger* ethanolic extract with conventional antidepressant drugs were also studied at sub-effective doses. **Results:** The ethanolic extract (50, 100, 200 and 400 mg/kg) significantly reduced immobility duration of mice in FST and TST. The same doses did not change the motor activity in mice. However, high dose of extract has shown anxiolytic activity. Interaction study with conventional antidepressant drugs reduced the duration of immobility count suggests, possible involvement of biogenic amine in antidepressant action. **Conclusion:** These data suggests that *Hyoscyamus niger* possesses antidepressant like action in mouse model of depression.

Keywords: *Hyoscyamus niger*, Forced swim test, Tail suspension test, Depression.

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