

Memory Enhancing Activity of *Tylophora Indica* Ethanolic Extract on Alcohol Induced Amnesia in Wistar Albino Rats

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Background

People consume drugs to alter the way, they feel, think, or behave. These kinds of substances are named psychoactive and cover alcohol and tobacco as well as natural and manufactured drugs. Drug abuse affects most countries in the world, both rich and poor. This drug menace crosses national, racial, religious and gender lines. Drug addicts vary from the homeless, to white-collar professionals, college students to rural farmers, street children to urban teenagers. Alcohol being a habit forming drug can be harmful in a number of ways, through both immediate effects and damage to health over time. Chronic use of alcohol affects cognitive development and short-term memory.

Aims & Objectives

To investigate the memory enhancing activity of ethanolic extract of *Tylophora indica*, an indigenous medicinal plant on ethanol induced memory loss in Wistar albino rats.

Material & Methods

Cognitive impairment was induced by administering

7.5% v/v Ethanol in rats for 14 days orally. This was confirmed by using Hebb William maze, an established model of memory. The latency of the time spent to reach the reward chamber of the maze (in seconds) was noted.

Results

It was observed that animals which received ethanol took more time to reach the reward chamber, than the normal rats. The anti-amnesic activity of the ethanolic extract of *Tylophora indica* was assessed using another set of animals, which received parallel administration of alcohol and the plant extract. It was striking to observe that animals which received plant extract spent less time to reach the reward chamber, than the ethanol alone administered rats.

Conclusions

The data suggests that alcohol administration can cause memory loss, which can be prevented by the co-administration of *Tylophora indica* ethanolic leaf extract.

Keywords: Ethanol; Amnesia; Wistar albino rats; *Tylophora indica*; Ethanolic extract; Anti-amnesic.