Aim: To evaluate the anti cataleptic activity and anti oxidant activity of alcoholic extract of nardostachys jatamansi in haloperidol induced caleptic rats.

Methods: 1mg/ kg haloperidol was administered to induce catalepsy in Wister rats. The catalepsy was measured by block method and metal bar method. Block method is the scoring method. Behavioral assessment in haloperidol-induced cataleptic rats was studied. Cataleptic behavior was measured with a high bar test method. To estimate biochemical parameters: the generation of thiobarbituric acid reactive substances (TBARS); reduced glutathione (GSH) content and glutathione-dependent enzymes; catalase; and superoxide dismutase (SOD), in the brain.

Result: Haloperidol induced catalepsy significantly (P< 0.01) at a dose of 1 mg/kg (intraperitoneal administration). Significant reversal in haloperidol-induced catalepsy was observed with the oral administration of the extract of *N. jatamansi* and combination of l-dopa and carbidopa. The maximal decrease (P< 0.01)) in catalepsy was observed in the group receiving alcoholic extract of *N. Jatamansi* at a dose of 500 mg/kg. The haloperidol-treated rats showed a significant increase (P< 0.01)) in TBARS and there was also a significant reduction (P< 0.01) in SOD, CAT, and GSH in the brain tissue. Oral administration of the extract along with haloperidol administration significantly restored(P< 0.01) the peroxides and antioxidant levels to near normal in the brains of the test animals.

Conclusion: From the above studies we concluded that the alcoholic extract of N Jatamansi is a potent antioxidant and neuroprotective drug.