**ABSTRACT**

The study was carried out to evaluate the neuroprotective effect of hydroalcoholic extract

of Eclipta alba (Linn.) Hassk against global cerebral ischemiareperfusion injury in rats.

Adult male Wistar albino rats were treated with hydroalcohic extract of Eclipta alba

(250 and 500 mg/kg/day, p.o.) for 10 days. The global cerebral ischemiareperfusion

injury was induced by occluding bilateral common carotid arteries (BCCAO) for 30 min,

followed by 4 h reperfusion. After that, animals were sacrificed by decapitation, brain

was removed, various biochemical estimations, assessment of cerebral infarct size,

cerebral edema and histopathological examinations were carried out. BCCAO

caused significant depletion in superoxide dismutase (SOD), glutathione (GSH),

catalase (CAT), glutathione peroxide (GPx), glutahione-Stransferase (GST), glutathione

ruductase (GR) and significant increase in lipid peroxidation (LPO) in brain.

Pretreatment with Eclipta alba hydroalcoholic extract significantly reversed

the levels/activities of above mentioned biochemical parameters and significantly

reduced cerebral infarct size and edema as compared to the ischemic control group.

Eclipta alba at higher dose markedly reduced ischemia-induced neuronal loss of the brain.

The results of our study show that Eclipta alba pretreatment ameliorates

cerebral ischemia/reperfusion injury and enhances the antioxidant defense against

BCCAO induced I/R in rats; so it exhibits neuroprotective property.

**Keywords:-** global cerebral ischemia; Eclipta alba; oxidative stress; infarct size;

ischemia- reperfusion injury.