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Evaluation of hepatoprotective activity of *Ixora coccinea* against xenobiotics induced liver damage in alloxan induced diabetic rats

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The objective was to evaluate hepatoprotective activity of Ixora coccinea (IC) against xenobiotics induced liver damage in alloxan induced diabetic rats. Wistar rats of either sex (250±5 gm) were divided into 5 groups. Animals of (Group-1) were non diabetic and received 4 ml/kg p.o allyl alcohol. Diabetes was induced by alloxan (160 mg/kg i.p). Diabetic animals were divided into control (Group-2), ally alcohol (Group-3), IC (600 mg/kg p.o + ally alcohol 4 ml/kg p.o Group-4). Allyl alcohol administration in diabetic animals showed increased necrosis index compared to non diabetic group. Treatment of animals with IC 600 mg/kg showed dose dependent reduction of necrosis index. In separate group of non diabetic and diabetic animals thioacetamide (300 mg/kg i.p) was administered to induce hepatotoxicity on day 6. Group-1 non diabetic control (distill water p.o), Group-2 non diabetic thioacetamide, group 3 diabetic control, Group-4 diabetic thioacetamide control (300 mg/kg i.p), Group-5 (thioacetamide+IC 600 mg/kg p.o). Blood samples and liver samples were collected on day 8. Thioacetamide produced increase in serum AST & ALT levels in both non diabetic and diabetic animals. There was significant increase in serum AST & ALT levels observed in diabetic animals when compared to non diabetic animals. IC (600 mg/kg, for 8 days) showed significant reduction in serum AST & ALT levels compared to thioacetamide (300 mg/kg) group. Histopathology results correlated with biochemical parameters. It is concluded that IC (600 mg/kg) showed hepatoprotective effect in both allyl alcohol and thioacetamide induced hepatotoxicity in both diabetic and non diabetic animals.

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