

Evaluation of Hypolipidemic Effect of Leaf Essential Oil of Citrus sinensis in Alloxan- Induced Diabetic Rats

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Abstract : The hypolipidemic effect of leaf essential oil of Citrus sinensis in alloxan-induced diabetic rats was evaluated. Forty albino rats (150-200 g) were randomly selected into 4 groups of 10 rats each, representing Normal Control, Diabetic Control, Diabetic treated with 14.2 mg/kg body weight Metformin and Diabetic treated with 110 mg/kg body weight leaf essential oil of Citrus sinensis. Diabetes was induced in the animals by intraperitoneal administration of single dose alloxan monohydrate (150 mg/kg body weight). The leaf essential oil of Citrus sinensis was administered every other day to the Diabetic rats for a period of 15 days. The effects of leaf essential oil on High Density Lipoprotein (HDL), Low Density Lipoprotein (LDL), Triglycerides and Cholesterol were evaluated. A significant reduction ($p < 0.05$) in LDL, Triglycerides and cholesterol levels and a significant increase ($p < 0.05$) in HDL was observed. Leaf essential oil of Citrus sinensis possesses hypolipidemic properties.

Keywords : Citrus sinensis, Diabetes mellitus, hypolipidemic, leaf essential oil

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