

“Evaluation of Antidiabetic activity of *Thevetia peruviana* in diabetic Rats”

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ABSTRACT

OBJECTIVE: The present study was designed to evaluate the effect of the methanolic extract of *Thevetia peruviana* in fructose induced diabetic rats.

MATERIALS AND METHODS: Albino wistar rats (250-300 gm) were given fructose (10%) for 30 days to induce diabetes. Thirty rats were randomly divided into 5 groups of six animals each. Metformin (500 mg/kg; p.o) was used as standard drug. Rats were given methanolic extract of *Thevetia peruviana* for the treatment of Type -2 diabetes. At the end of treatment period, the animals were evaluated for the various

parameters like Blood glucose level, Body weight, HDL, LDL, serum triglyceride, total cholesterol, Plasma insulin and antioxidant parameter.

RESULTS: Administration of Fructose for 30 days significantly increase ($P < 0.01$) body weight, blood glucose level, LDL, serum cholesterol and triglyceride level and decrease HDL level as compared to vehicle control. Administration of methanolic extract of *Thevetia peruviana* (100 and 200 mg/kg, p.o) for 30 days significantly decrease body weight, blood glucose level, serum cholesterol, triglyceride and LDL with increase HDL level in diabetic rats. The results were compared to those obtained with metformin standard drug for diabetes.

CONCLUSION: The present results provide clear evidence that the methanolic extract of *Thevetia peruviana* treatment enhance antioxidant defence, Hypolipidemia and antidiabetic action against fructose induced diabetes.

Key Word : Fructose, Diabetes, *Thevetia peruviana*,