



Determination of the Anti-Diabetic Effect of Methanolic Extract of *Sphaeranthus indicus* L. on Alloxan Induced Diabetic Rabbits

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SUMMARY. The aim of present study was to determine the anti-diabetic effect of methanolic extract of *Sphaeranthus indicus* L. (SMe) in alloxan induced diabetic rabbits. It was further aimed to determine the effect of SMe on various biochemical parameters, namely blood glucose levels, total cholesterol, lipoproteins (HDL and LDL), liver functions (SGOT and SGPT), serum creatinine and urea level in alloxan induced diabetic rabbits. Rabbits were divided into five groups: one non-diabetic control, treated with vehicle and four experimental (diabetic) groups. The experimental groups can be described as diabetic negative control, treated with vehicle, diabetic positive control, treated with 80 mg/kg of diamicron, a reference drug; and diabetic treated with 150 or 300 mg/kg of SMe. Pre- and post-experimental lipid profile, liver function and kidney function of rabbits was determined. The SMe at the dose of 300 mg/Kg body weight significantly ($p < 0.05$) reduced the blood glucose level, plasma total cholesterol, triglycerides and LDL in treated rabbits as compared to diabetic rabbits. This dose significantly increased the level of HDL (36.95 ± 2.95) in treated group as compared to diabetic group. The activity of SGOT and SGPT also significantly ($p < 0.05$) decreased in treated diabetic rabbits. The effect of SMe treatment on serum creatinine values was non-significant ($p > 0.05$).

KEY WORDS: Anti-diabetic effect, Methanolic extract, *Sphaeranthus indicus*.

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