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A study of anti-diabetic activity of *Plantago major* Linn leaves in streptozotocin induced diabetes in rats

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Diabetes mellitus is a metabolic disorder characterized by hyperglycemia that results from defects in insulin secretion and action or both. The presence of DM employs increased risk of many complications such as cardio vascular disease, coronary artery disease, stroke, neuropathy, renal failure, renal failure, retinopathy etc. This study concentrates on the experimental investigation of the anti-diabetic activity of the leaves of *Plantago major* Linn (Family: Plantaginaceae). Diabetes was induced in Wister rats used for this study by streptozotocin. The methanolic extracts of leaves of *Plantago major* were administered orally (100 and 200 mg/kg, for 15 days). Hypoglycemic effects, oral glucose tolerance test, change in body weight and lipid profile of diabetic rat treated with methanolic extracts were determined and compared with normal, diabetic control and standard drug treated rats. Histological examination during 15 days of treatment was also carried out. Methanolic extract (200 mg/kg) produced a significant reduction in fasting blood glucose level in streptozotocin-induced diabetic rats. Significant differences were also observed in urine glucose level, oral glucose tolerance test, serum lipid profile and body weight of methanolic extract treated diabetic rats, when compared with diabetic, normal and standard drug treated rats.

Biography

Purbajit Chetia has completed his MPharm in 2012 from Sikkim University and enrolled PhD in Assam Down Town University, Guwahati, Assam. Currently, he is working as an Assistant Professor in the Department of Pharmaceutical Science in Assam Down Town University. He is having a few research publications in reputed journals.

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