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Anti-diabetic activity of *Sonchus asper* and *Sonchus arvensis* leaf in alloxan induced diabetic rats

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Diabetes mellitus (DM) is a chronic disease caused by inherited or acquired deficiency in production of insulin by the pancreas, or by the ineffectiveness of the insulin produced. India has today become the diabetic capital worldwide over 20million diabetes and this number is set to increase to 57 million by 2025. Decreased physical activity, increasing obesity, stress and changes in food consumption is the main reason for causing Diabetes mellitus. Though different types of oral hypoglycemic agents are available along with insulin for the treatment of diabetes, there is an increase demand by patients to use natural products with anti-diabetic activity. The present study was carried out to investigate the anti-diabetic potential of ethanolic extract of the leaves of *Sonchus asper* (Family- Asteraceae) and *Sonchus arvensis* (Family-Asteraceae). Oral administration of ethanol extract in the doses of 100, 150 & 200 mg/kg body weight to white Wistar rats significantly reduced their blood sugar level in alloxan induced diabetic rats under acute and sub-acute studies. The results showed that the ethanol extract doses of 200mg/kg b-wt have significant anti-hyperglycemic effect in experimental model of diabetes mellitus. Based on the results, it can be reasonably concluded that both *Sonchus* species has anti-diabetic activity. This study also becomes a valuable reference for further research.

Biography

Koushik Nandan Dutta has completed his MPharm in 2013 from Uttarakhand Technical University, Dehradun and enrolled PhD in Assam Down Town University, Guwahati, Assam. He has completed 1 year project at Defense Research laboratory, Tezpur Assam. Currently he is working as an Assistant Professor in the Department of Pharmaceutical Science in Assam Down Town University. He has published eight publications in reputed journals.

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