



Evaluation of Anti-Inflammatory and Anti-Diabetic Activity of Bark Extracts of *Pajanelia Longifolia* (Willd.) K.Schum

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ABSTRACT

Evaluation of anti-inflammatory and antidiabetic property of Pajanelia longifolia stem bark with preliminary phytochemical profile of the extracts has been carried out in this part of work. The dried plant material was packed in Soxhlet apparatus and extracted successively with pet-ether to de-fat the drug, petroleum-ether was removed from the powdered defatted drug, which was then extracted with chloroform and methanol as increasing polarity. All the extracts were screened for anti-inflammatory and antidiabetic activity using carrageenan induced paw edema and alloxan induced diabetic respectively. The toxicity and phytochemical screening were done using standard procedure. Alkaloids, flavonoids, phytosterols, phenolic compounds, glycosides carbohydrates, proteins, gums and amino acids have been determined by preliminary phytochemical tests. The acute toxicity study of various extracts of Pajanelia longifolia was conducted and dose of 3000 mg kg⁻¹ body weight fixed for anti-inflammatory and antidiabetic activity. Among all the extracts, chloroform extract showed a significant decrease in the degree of swelling, after 5 h carrageenan injection as compared with control and exhibited a potent antidiabetic activity at dose dependent manner when compared to diabetic untreated group.

Keywords: Pajanelia longifolia (Willd.) K.Schum, Anti-inflammatory activity, Anti-diabetic activity, Indomethacin, Alloxan.
