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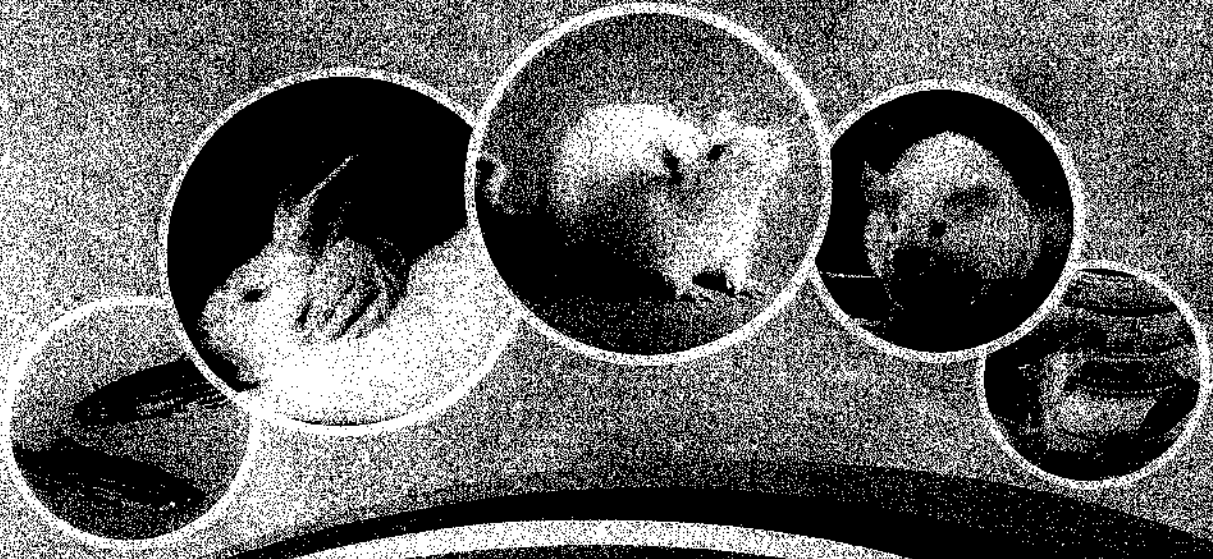

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## Toxicological evaluation of selected extracts of *Barleria prionitis* on Wistar rat model

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**Introduction:** *Barleria prionitis* (Family; Acanthaceae) is widely used in Ayurvedic practice for the management of a variety of ailments including kidney diseases. The present study was to evaluate the sub-chronic toxic effects of hexane, ethyl acetate, butanol and aqueous extracts of *B. prionitis* whole plant in Wistar rats, in order to determine its safety.

**Methodology:** Hexane, ethyl acetate, butanol and aqueous plant extracts were administered orally as a single dose to Wistar rats ($n$=3/sex/group) daily for 28 days at 25, 80, 70 and 120 mg/kg/day doses (equivalent therapeutic dose) respectively. Blood samples were collected at the end of the intervention for haematological examinations and analysis of selected biochemical parameters. Specimens of heart, lung, small intestine, liver, kidney and spleen were excised for the assessment of relative organ weight and the histopathological changes on H and E stained sections. One-way ANOVA followed by the Dunnets post hoc test was used for the statistical analysis.

**Results and Discussion:** The repeated administration of the selected extracts of *B. prionitis* for 28 consecutive days produced no significant changes in the haematological profile and the levels of serum protein, creatinine, blood urea nitrogen, fasting plasma glucose, total cholesterol, high density cholesterol, triacylglycerol and alanine aminotransferase, aspartate aminotransferase, alkaline phosphatise and γ- glutamyl transpeptidase activities ($p$>0.05). Moreover, no significant changes in relative organ weight and the histopathology of the selected organs were observed compared to the healthy control rats.

**Conclusion:** The results revealed that oral administration of the selected extracts of *B. prionitis* at a therapeutic dose for 28 days had no noticeable toxic effect in healthy Wistar rats.

**Keywords:** *Barleria prionitis*, Sub-chronic toxicity, Haematology, Wistar rats