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**HISTOLOGICAL CHANGES ON TESTES OF MICE ADMINISTERED WITH DIFFERENT CONCENTRATIONS OF *Cosmos caudatus* ETHANOLIC EXTRACT**

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## ABSTRACT

The histological changes of testes of mice were assessed after 28 days treatment with different concentrations of *Cosmos caudatus* ethanolic extract (50, 125, 500 and 1000 mg/kg). Testicular tissues were fixed in 10% formalin, embedded in paraffin wax and cut for histological study. The qualitative assessment of histological changes of the testes showed different degrees of thickness and density of seminiferous tubules as rated according to the following scales: 1, thin and low density of seminiferous tubules; 2, moderately thick and moderately dense seminiferous tubules; 3, thick and dense seminiferous tubules. Scale 3 was observed in testes of mice treated with 500 and 1000 mg/kg b wt., scale 2 in group treated with 50 mg/kg b.wt. and scale 1 in group treated with 125 mg/kg b wt. of the extract. The total percentage of condensed seminiferous tubules (seminiferous tubules without lumen) is highest in the testes of mice from 500 mg/kg b wt. (52.5%) and the lowest from 125 mg/kg b wt. (26.3%). Both groups from 500 and 1000 mg/kg b wt. showed significant results ( $p < 0.05$ ) which the thickness of the seminiferous tubules increased as compared with the control group of mice. Hence, the higher concentration of *C. caudatus* gave better effects on spermatogenic activity of the testes of mice, as revealed by the density and thickness of the seminiferous tubules.

Keywords: *Cosmos caudatus*, Spermatogenic cells, Testes, Seminiferous tubules