

Evaluation of Diuretic Activity of Ethanolic Extracts of Cucurbita Maxima seeds in Rats

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Abstract

Background: Kidneys play an important role in water and electrolyte conservation and it forms an integral part of body homeostatic mechanism. Diuretics are drugs used to treat several conditions including cardiac failure, Nephrotic syndrome, cirrhosis of Liver and treatment of hypertension. In the present study we tried to evaluate the antidiuretic activity of extracts of cucurbita maxima Duchesne (commonly known as pumpkin) in Rats.

Methods: Adult albinorats of either sex weighing in between 150-200gms were used. The diuretic activity of Cucurbita Maxima at the dosage of 150mg/kg and 300mg/Kg was compared with Standard drug Furosemide at the dosage of 20mg/Kg. Diuretic activity was measured by collecting total excreted urine (0-5hrs) the rats being kept in metabolic cage.

Results: The urinary volume during the period of the 5hr collection in Group I [Control] was 1.96 ± 0.12 ml/kg. In the Group II which was treated with 20mg/kg of furosemide, there was a significant increase in the urinary volume i.e. 4.71 ± 0.83 ml/Kg. In the test Group III treated with Cucurbita maxima at dosage of 150mg/Kg, the urinary volume was significantly greater than control. The urinary volume for the Test-1 group was found as 3.33 ± 0.34 ml/Kg and Group IV treated with Cucurbita maxima at dosage of 300mg/Kg was found to be 3.55 ± 0.51 ml/kg. **Conclusions:** Cucurbita maxima produced a significant increase in urinary volume, urinary and Serum electrolytes excretion when compared to control. The diuretic activity was more significant at 300 mg/kg body when compared to control. From this study, it may be concluded that the ethanolic extract of Cucurbita maxima produces significant diuresis however its effect is not as strong as standard drug Furosemide.