

Phytochemical Screening and Evaluation of the Diuretic activity of Aqueous Extract from Ficus Sycomorus Leaves in Mice

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Abstract

Background: The medicinal value of plants lies in chemical substances that produce a definite pharmacological action. There is now an urgent need to search for novel and effective medicines from plants that may be the remedy for some incurable diseases like hypertension, diabetes, cancer and so on. The aim of this study was to investigate the diuretic potential of the aqueous extract of Ficus sycomorus leaves in mice after intramuscular route administration.

Methods: Phytochemical active ingredients were identified by several laboratory qualitative screening tests for the prepared Ficus sycomorus aqueous leaf extract. Then adult mice were administered by intramuscular route injection with aqueous Ficus sycomorus extracts (500 mg/kg). Urine output was then quantified up to 6 h and compared with those administered with furosemide 10 mg/kg as a positive control group and normal saline as a negative control group.

Results: The obtained results showed that aqueous extract of Ficus sycomorus leaves was rich phytochemicals such as phenols, flavonoids and tannic acid, glycosides, steroids and volatile oil which are known as active compounds with different pharmacological effects. The aqueous extract showed some antidiuretic activity in mice with Mean \pm SEM for the total urine output 1202 \pm 196.5ml compared with positive control group and normal saline as a negative control group which was 4540 \pm 414ml and 1452 \pm 287.8ml respectively.

Conclusion: In this project it was observed that aqueous extract Ficus sycomorus leaves was rich in phytochemicals that responsible for several pharmacological activities, this extract was observed to have some antidiuretic effect in mice may be due to high content of tannic acid when compared its results with compared with positive control group and normal saline as a negative control group, so further in-vivo studies must be carried out on this extract in the future .

Keywords: Furosemide, Diuretics, Ficus sycomorus, phytochemical tests .