

Phytochemical Investigation and Diuretic Activity of the Palestinian *Crataegus aronia* in Mice Using an Aqueous Extract

Authors : Belal Rahhal, Isra Taha, Insaf Najajreh, Waleed Basha, Hamzeh Alzabadeh, Ahed Zyoud

Abstract : Phytochemical Investigation and Diuretic Activity of the Palestinian *Crataegus aronia* in Mice using an Aqueous Extract Division of Physiology, Pharmacology and Toxicology Faculty of Medicine and Health Sciences An- Najah National University Nablus- Palestine Belal Rahhal, Isra Taha, Insaf Najajreh, Waleed Basha, Hamzeh Alzabadeh and Ahed Zyoud
Purpose: Throughout history, various natural materials were used as remedies for treatment of various diseases, and recently a vastly growing and renewed interest in herbal medicine is witnessed globally. In Palestinian folk medicine, *Crataegus aronia* is used as a diuretic and for treatment of hypertension. This study aimed to assess the preliminary phytochemical properties and the diuretic effect of the aqueous extracts of this plant in mice after its intraperitoneal administration. **Methods:** It is an experimental trial applied on mice (n=8, Male, CD-1, weight range: [25-30 gram]), which are divided into two groups (4 in each). The first group administered with the plant extract (500 mg/kg) , and the second with normal saline as negative control group. Then urine output and electrolyte contents were quantified up to 6 hours for the three groups and then compared to the control one. **Results:** Preliminary phytochemical screening reveals the presence of tannins, alkaloids and flavonoids as major phytoconstituents in aqueous extract. Significant diuresis was noted in those received the aqueous extract of *Crataegus aronia* (p < 0.05) compared to controls. Moreover, aqueous extract had an acidic pH and a mild increase in the electrolyte excretion (Na, K). **Conclusions:** Our results revealed that *Crataegus aronia* aqueous extract has a potential diuretic effect. Further studies are needed to evaluate this diuretic effect in the relief of diseases characterized by volume overload. **Keywords:** *C. aronia*, furosemide, diuresis, mice, medicinal plants.

Keywords : medicinal plants, diuretic activity, mice, *C. aronia* , furosemide, , Phytochemical Investigation

Conference Title : ICEDD 2020 : International Conference on Ethnopharmacology and Drug Discovery

Conference Location : Dublin, Ireland

Conference Dates : March 19-20, 2020