ABSTRACTS

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TOXICITY STUDIES ON AQUEOUS EXTRACT OF FLOWER AND STALK OF *APONOGETON CRYSPUS* IN RATS

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Aponogeton cryspus belongs to genus Aponogeton. This plant has many folkloric medicinal uses and possesses many medicinal properties. Studies on the pharmacological activity have shown the presence of hypoglycaemic activity of flower and stalk of *A. cryspus* extract. The safety of the plant must be determined prior to human studies. However, no extensive safety studies have been conducted on extracts of *A. cryspus* to date. The aim of the study was to evaluate the short term and sub chronic toxicity of flower and stalk of optimum effective dose for hypoglycaemic activity of *A. cryspus* in Wistar rats. Rats in the test group (n=6) were orally treated with the 1ml of the previously determined optimum dose (90mg/ kg/ day) of aqueous crude extract of combination of flowers and stalk of *A. cryspus* and control group was given 1 ml distilled water for consecutive 14 days for evaluating the short term toxicity and further for 28 consecutive days for sub chronic toxicity. They had free access to food and water. At the end of 14 days, haemoglobin levels (Hb) and serum creatinine level were measured. At the end of 42 days, biochemical and haematological analysis were done. Histopathological studies on selected tissues were also were carried out. The concentrations of serum alanine transaminase (ALT), alkaline phosphatase (ALP) and creatinine as well as the levels of WBC, RBC, Hb, HCT and platelets showed no statistically significant differences between control and treated groups of animals. Histopathological examination of liver, heart and kidney revealed no significant pathological alterations. The present study shows that the aqueous extract of flowers and stalks of Aponogeton cryspus does not exert any toxic effects at a dose of 90 mg/kg.

Keywords: *Aponogeton cryspus,* Haematological analysis, Histopathological studies, Rats, Toxicity