Effect of Fagonia Cretica Linn Ethanolic Extract on Different Hematological Parameters in Albino Rats in Sudan

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Abstract

Objectives: To determine the effects of ethanolic extract of fagonia cretica linn on different hematological parameters, in albino rats, in Sudan (January – February) 2011. Materials & Methods: Different methods were adopted in this study; the Harborne extraction method was applied. A total of (30), young adult Wistar rats of age (8-12) weeks, weighing (42.6 – 72.2) grams, maintained at standard laboratory conditions, obtained from Sudan NCR. Rats were divided into (4) groups, (3) x (7) rats (study groups), and control group (9) rats. All rats were sacrificed for inspection, and safety of internal organs. Ethical approval had been obtained. Before experiments started, rats were fasted overnight for (14 – 16) hours. the control group (C), received orally (10) ml/kg distilled water, while groups (1,2,3) were orally receiving single, daily doses ( 100, 300 and 600) mg/kg of body weight of the extract in distilled water (1 g/10 ml) respectively, for (14) days using acute oral toxicity (425) protocol [36]. (CBC) blood samples were collected in (EDTA) tubes from the rat’s eyes using nonheparinized capillary tubes. The assay was done at Shendi University using (Shenzhen Mindray BC-3000 Plus Auto Hematology Analyzer). Results: The ethanolic extract of Fagonia cretica in doses of (100, 300 and 600) mg/kg/body weight) has different effects on the major blood cells in rats after the study period (14 - days) compared to the control group. Conclusion: Statistical analysis for evaluation of the extract affects different variant hematological parameters, but in general it is concluded that it raises the main blood parameters.

Keywords: Fagonia cretica linn, Extraction, Toxicity, Hematological parameters. NCR, National Centre for Research.