

Hepatoprotective Effects of Parsley, Basil, and Chicory Aqueous Extracts against Dexamethasone-Induced in Experimental Rats

Authors : Hanan A. Soliman, Mohamed A. El-Desouky, Walaa G. Hozayen, Rasha R. Ahmed, Amal K. Khaliefa

Abstract : Aim: The objective of this study is to investigate the hypoglycemic, hypolipidemic, and hepatoprotective effects of the aqueous extract of parsley, basil, and chicory whole plant in normal and dexamethasone (Dex) rats. Materials and Methods: 50 female albino rats were used in this study and divided into 5 groups (for each 10). Group (1) fed basal diet and maintained as negative control group. Group (2) received Dex in a dose of (0.1 mg/kg b. wt.). Groups 3, 4, and 5 were treated with Dex along with three different plant extracts of parsley, basil, and chicory (2 g/kg b. wt.), (400 mg/kg b. wt.), and (100 mg/kg b. wt.), respectively. Results: All these groups were treated given three times per week for 8 consecutive weeks. Dex-induced alterations in the levels of serum glucose, triglyceride, cholesterol, low-density lipoprotein-cholesterol levels and cardiovascular indices and serum alanine aminotransferase, aspartate aminotransferase and lactate dehydrogenase activities, liver thiobarbituric acid (TBARS) levels increased, while high-density lipoprotein-cholesterol, total protein, albumin, and liver glutathione (GSH) levels decreased. On the other hand, plant extracts succeeded to modulate these observed abnormalities resulting from Dex as indicated by the reduction of glucose, cholesterol, TBARS, and the pronounced improvement of the investigated biochemical and antioxidant parameters. Conclusions: It was concluded that probably, due to its antioxidant property, parsley, basil, and chicory extracts have hepatoprotective effects in Dex-induced in rats.

Keywords : antioxidants, dexamethasone, hyperglycemia, hyperlipidemia

Conference Title : ICBST 2016 : International Conference on Biomedical Science and Technology

Conference Location : London, United Kingdom

Conference Dates : August 25-26, 2016