

عنوان مقاله:

The Effects of Rosa canina Fruit Hydro alcoholic Extract on Oxidative Stress, Total Antioxidant Capacity and Haematological Parameters in Diabetic Mice

محل انتشار:

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خلاصه مقاله:

Abstract Background: Diabetes is a metabolic disorder with adverse effects on haematological parameters level, oxidative stress and antioxidant defence system. This study aimed to investigate the effects of Rosa canina (RC) fruit hydro alcoholic extract on oxidative stress, total antioxidant capacity (TAC) and haematological parameters in diabetic mice. **Method:** In this study, ۹۶ mice were randomly divided into the four groups (n=۲۴). The control and diabetic groups received normal saline (p.o., ۰.۲ ml). Also, RC and treatment (diabetes+RC) groups received RC hydro alcoholic extract (p.o., ۵۰۰ mg/kg). Diabetes was induced by a single dose of streptozotocin (i.p., ۲۰۰ mg/kg). The study parameters were evaluated on day ۱۰, ۲۰, and ۳۰ after the initiation of experiments. **Results:** In the second and third sampling days, WBCs, lymphocytes, haemoglobin, RBC, MCV, MCHC, platelets, TAC and weight had a significant reduction ($p < 0.01$) in the diabetic group in comparison to the control group. However, granulocytes, RDW, malondialdehyde (MDA) and glucose in the diabetic group significantly increased compared with the control group ($p < 0.01$). Administration of the extract in the diabetic group significantly increased hemoglobin, MCV, MCHC, platelets, RBC, serum TAC and resulted in significant reduction in RDW and MDA levels in comparison to normal saline received diabetic animals ($p < 0.01$). **Conclusion:** Based on our results, RC fruit extract has a regulatory role in controlling oxidative stress, serum TAC and hematologic factors in mice model of diabetes.

کلمات کلیدی:

oxidative stress, Total Antioxidant Capacity, hematological parameters, Diabetes, Rosa canina, Mice

لینک ثابت مقاله در پایگاه سیویلیکا:

