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IMPROVEMENT OF HEMATOLOGICAL PROFILE IN STREPTOZOTOCIN-INDUCED DIABETIC RATS, TREATED WITH EGYPTIAN RADISH AND CLOVER SPROUTS

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ABSTRACT

Radish and clover sprouts have previously been hypoglycemic and antioxidant effects. This study was designed to examine the effects of feeding Egyptian radish sprouts (ERS) and Egyptian clover sprouts (ECS) on hematological parameters in experimental diabetic rats. 36 male albino rats were randomly allocated into six groups with 6 rats per each one, Diabetes was induced in rats by intraperitoneally injection of streptozotocin (STZ) (60 mg/kg) by the end of the experiment, blood samples were collected and were immediately used for determination of hematological parameters and blood glucose. The results indicated that Blood glucose of diabetic rats showed about 93% and 91% improvement by feeding on ERS and ECS semi modified diets respectively. Also the both ERS and ECS diet, significantly improved the levels of leukocytes by decreasing counts of total white blood cells (WBCs) and differential leucocytes count (NEUT, LYMPH, MONO, EO and BASO) to about approximately normal levels in diabetic rats, while it produced no significant change in RBCs count and its related indices. Although STZ- diabetes decreased total count of PLTs compared to normal control rat. The feeding diabetic rats on ERS or ECS semi-modified diets increased total count of PLT. It may be concluded that both ERS and ECS semi-modified are safe and capable of normalizing hematological abnormalities associated with diabetes mellitus thus could be prescribed as adjunct to dietary therapy and main therapy for diabetes mellitus.

Key words: Egyptian radish sprout, clover sprouts, streptozotocin, diabetic, hematological parameters, blood Profile