



The influence of carob powder on lipid profile and histopathology of some organs in rats

Khaled M. A. Hassanein M. Kamal E. Youssef Hend M. Ali Moshera M. El-Manfaloty

Abstract:

The present study aimed to investigate the effect of two levels of carob powder 10 and 20 % on lipid profile. Forty male Sprague-Dawley rats were divided into two groups. The first group was fed on a basal diet and acts as a control group. The second group was fed on a hyperlipidemic diet (a basal diet plus 10 % animal fat and 1 % cholesterol). After 6 weeks, the second group was divided into three even subgroups: subgroup 1 was fed on a hyperlipidemic diet, subgroup 2 was fed on a hyperlipidemic diet plus 10 % carob powder, and subgroup 3 was fed on a hyperlipidemic diet plus 20 % carob powder. At the end of the experimental period, serum samples were collected to measure total cholesterol (TC), triglyceride (TG), high-density lipoproteins (HDL), low-density lipoproteins (LDL), and very-low-density lipoproteins (VLDL). Heart and kidney samples were taken for histopathological examination. The obtained results revealed that feeding rats with 10 and 20 % carob powder improved lipid profile parameters and histopathological characteristics in the heart and kidney of experimental rats.

Keywords:

Carob powder . Rats . Lipid profile, Histopathology . Kidney . Heart

Published In:

Comparative Clinical Pathology , Vol. 24 , 1509-1513