Effect of Buckwheat extract on free radical generation in rabbits administered high-fat diet

https://www.researchgate.net/publication/230031966
DOI: 10.1002/ptr.2650090503

Cited in:

Phytotherapy Research 9(5):323 - 326, 1995
Effect of Buckwheat extract on free radical generation in rabbits administered high-fat diet

J. Wójcicki L. Samochowiec B. Gonet S. Juźwiak E. Dabrowska-Zamojcin M. Katdońska S. Tustanowski
Department of Pathophysiology and Department of Radioisotopes, Medical Academy, Powstańców Wlkp. 72, 70–111 Szczecin, Poland

Abstract

In this study the effect of buckwheat extract (BE) on the level of malondialdehyde (MDA), lipids and hormones, and on the concentration of ascorbate free radicals in the liver (compared with rutin) in animals receiving a high fat diet (HFD) was measured. Male mongrel rabbits were randomly divided Into four groups: (1) control, (2) animals given HFD containing cholesterol and coconut oil, (3) rabbits treated with HFD + BE, (4) HFD + rufin, over a period of 12 weeks. The concentration of MDA in rabbits of group 3 (HFD + BE) was slightly but significantly decreased, whilst the number of ascorbate free radicals, examined in vitro, in the liver was markedly elevated. The level of testosterone in rabbit blood serum (group 3) was increased, but the insulin concentration was significantly diminished (in comparison with group 2). The content of total cholesterol and triglyceride in the liver of animals maintained on BE was decreased. Quite distinct superiority of BE, compared with rutin, was shown.

Reference

Bijlani RL, Gandhi BM, Gupta MC, Manocha S, Tandon BN. Effect of whole buckwheat (*Fagopyrum esculentum*) flour supplementation in lipid profile and glucose tolerance. Indian J. Med. Res 81: 162-168,1985