

Effect of Giving Fig Fruit Juice (Ficus carica Linn) on LDL Levels of Rats Induced by a high fat diet

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ABSTRACT

Dyslipidemia is an abnormal condition of the lipid profile characterized by an increase in total cholesterol levels, triglyceride levels, LDL cholesterol levels, and a decrease in HDL levels. Figs are a fruit that contains many antioxidants such as flavonoids. Flavonoids can reduce LDL cholesterol levels by inhibiting the VLDL mechanism, by inhibiting the ACAT and MTP enzymes. The aim of this research was to determine the effect of fig juice on the LDL levels of dyslipidemic male white mice. This type of research is true-experimental with a plan pretest-posttest with control group design. The samples used were 24 male Wistar white male rats aged 2-3 months with a body weight of 130-230 grams. Mice were divided into 3 groups, namely negative control group (K-), positive control group (K+), and treatment group (P) which were determined randomly. The treatment given was 8 ml of fig juice/rat/day for 15 days. LDL cholesterol levels were examined using the CHOD-PAP method and LDL precipitation. Data on LDL cholesterol levels were analyzed using tests One Way Anova, Kruskal Wallis, and Paired T-Test. The results of the study showed that there was no difference in LDL cholesterol levels between groups before giving the intervention ($p=0,175$), there were differences in LDL cholesterol levels between groups after giving the intervention ($p=0,011$), there were differences in LDL cholesterol levels in each group before and after the intervention ($p<0,05$), and there was no difference in LDL cholesterol levels between groups before and after the intervention ($p=0,269$). The conclusion of this study is that there is no effect of giving 8 ml of fig juice/rat/day on the LDL levels of dyslipidemic male white rats.

Key words: Dyslipidemia, LDL cholesterol, Figs, Flavonoids