

The Effect of Giving of Combination of Juice Papaya Seed and Lime on LDL Levels of Hypercholesterolemic Rats

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ABSTRACT

Hypercholesterolemia is a disorder of lipid metabolism characterized by an increase in total cholesterol levels above normal limits (<200 mg/dl). Hypercholesterolemia is closely related to increased levels of total cholesterol, LDL cholesterol, triglycerides and decreased HDL cholesterol. Therapy that can be done in patients with hypercholesterolemia is non-pharmacological therapy, namely by giving functional drinks high in antioxidant flavonoids and vitamin C so that they can reduce LDL oxidation levels. The purpose of this study was to determine the effect of papaya seed and lime juice on LDL levels in hypercholesterolemic rats. The type of research used is True Experimental with the Pretest-Posttest research design with Control Group Design. The sample used was 27 male Wistar rats, with a body weight of 100-300 grams, aged 3-4 months which were divided into 3 treatment groups, namely the negative control group (K-), (K+) and feed-induced treatment (P). high-fat 30 g/head/day ad libitum and PTU 1.08 ml/head/day by sonde for 28 days and given 6 ml/200 gBB/day a combination of papaya seed juice and lime for 21 days. LDL levels were examined by the indirect method. The results of this study were analyzed using the One Way Anova test, Post Hoc, Kruskal Wallis, Man Whitney and Paired T-Test. The results showed that there was a significant difference in pretest LDL levels ($p=0.005$) and there was a significant difference in posttest LDL levels ($p=0.002$). And there was no difference in pretest and posttest LDL levels in the (K-) group ($p = 0.056$), there was no difference in pretest and posttest LDL levels in the (K+) group ($p=0.0456$), and in the P group ($p=0.528$). There was no difference in the difference in LDL levels before and after the intervention ($p = 0.858$). The conclusion of this study is that after giving a combination of papaya seed juice and lime it is still not effective in reducing LDL levels in hypercholesterolemic rats.

Keywords: *Combination of papaya seed and lime juice, LDL levels, Hypercholesterolemia.*