The Effect of Papaya (*Carica Papaya L.*) Seed Powder Administration to the Changes of LDL and HDL Cholesterol Levels in Dyslipidemia Male Wistar Rat

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ABSTRACT

Papaya seed contains antioxidants in the form of Flavonoids, Saponins, and Tannin compounds that have a potential to reduce cholesterol. Flavonoids has a role in inhibiting cholesterol absorption, increasing bile excretion and the excretion of LDL receptors while saponins support the effect of hypolipidemia through an increased bile acids excretion and decreased activity of *3-hydroexi-3-methylglutaryl coenzyme A* (HMG-CoA) *reductase* which inhibits cholesterol synthesis. Tannin also have a role in decreasing HMG-CoA reductase activity. The purpose of this study was to determine the effect of papaya seed powder administration to the changes of LDL and HDL cholesterol levels in dyslipidemia male wistar rat. True Experimental was the type of this study while Pretest-posttest control group design was used as the research design to support this study. The sample used was male white rats by the age of 2-3 months and weight of 150-200grams, induced a high-fat diet in the form of egg yolk and PTU for 15 days, and given papaya seed powder as much as 6.2 gr/200gr BW of rat per day for 21 days. The LDL and HDL cholesterol levels were examined by the CHOD-PAD method. The data were analyzed by *Anova* and *Kruskal Wallis tests*, followed by pretest and posttest tests. There were differences in LDL and HDL cholesterol levels before and after treatment in the group 3 ($p<0,05$) by doses of papaya seeds powder as much as 6,2 gr/200gr BW of rat per day. The decreased of LDL cholesterol level was 38% and the increased of HDL cholesterol level was 39%. The administration of papaya seed powder can reduce LDL cholesterol level and increase HDL cholesterol level in the rat blood.

Key words: Papaya Seed Powder, LDL and HDL Cholesterol Levels, Dyslipidemia