The Effect of Guava Leaf Tea Administration on Triglyceride Levels in Dyslipidemic Wistar Strain Rats

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ABSTRACT

Individuals with dyslipidemia experience blood metabolism disorders characterized by increased or decreased lipid levels in the blood, namely abnormalities in total cholesterol, LDL, and triglyceride levels, as well as decreased HDL levels. The flavonoids contained in guava leaves have antioxidant properties that can suppress fatty acid synthesis. In addition, the polyphenols and tannins found in guava leaves have benefits that can lower triglyceride levels and improve blood mechanisms. The purpose of this study is to determine the effect of guava leaf tea administration on triglyceride levels in dyslipidemic Wistar rats. This research falls under the category of True Experimental research, using a Pre-Test and Post-Test design with a control group (Pre Test – Post Test with Control Group Design), conducted randomly. In this study, the test animal samples used were 18 Wistar rats, which were then divided into 3 groups: the negative control group (K-) was given standard RatBio feed and drinking water; the positive control group (K+) and the treatment group (P) were given a high-fat diet (beef fat, quail egg yolk, and used cooking oil) 4 ml/day and drinking water via oral gavage for 30 days, followed by a triglyceride level test (Pretest) after the rats developed dyslipidemia. Then, the K(-) group continued to receive standard RatBio feed and drinking water via gavage, the K(+) group received a high-fat diet 4 ml/day via gavage, water, and standard RatBio feed, and the P group received a high-fat diet 4 ml/day via gavage, water, standard RatBio feed, and guava leaf tea infusion 4 ml/day via gavage for 30 days. The results of this study showed that there were significant differences before and after the intervention in the negative control group (K-) ($p = 0.004$), positive control group (K+) ($p = 0.001$), and treatment group (P) ($p = 0.047$). Therefore, it is concluded that guava leaf tea infusion had effect on reducing triglyceride levels.

***Keywords**: guava leaf, triglyceride levels, dyslipidemia*