

Potential of Robusta Green Coffee steeping on Total Cholesterol Levels of Total Hyperlipidemia Rats

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ABSTRACT

Hyperlipidemia is a condition that indicates an increase in fat in the blood, characterized by cholesterol, triglycerides, and LDL. Robusta green coffee powder brew contains antioxidants, namely chlorogenic acid which can prevent lipid absorption and transformation and by preventing intestinal absorption and liver biosynthesis of cholesterol. The purpose of this study was to determine the potency of steeping robusta green coffee powder on total cholesterol levels of hyperlipidemic rats. This research method is True Experimental with Pretest-Posttest Control Group Design. The number of samples used was 27 male Wistar rats. Random sampling was divided into 3 groups. The negative control group was given standard feed, the positive control group was given high fat feed and 27.5% Fructose solution for 45 days then continued until the completion of the study, the treatment group was conditioned to hyperlipidemia by being given high fat feed and 27.5% Fructose solution and steeping powder. Robusta green coffee 3.6 ml / day by stomach sonde for 28 days. Data were analyzed using the One way ANOVA test and Paired t-test. The results showed that there was no significant difference between groups of rats before ($p = 0.173$) and after ($p = 0.648$). There was a significant decrease in total cholesterol levels in the treatment group before and after the intervention ($p = 0.011$). The conclusion of this study is that there is no potential in steeping robusta green coffee powder to reduce total cholesterol levels in hyperlipidemic rats.

Keywords: Chlorogenic Acid, Steeping Robusta Green Coffee Powder, Hyperlipidemia, Total Cholesterol Levels