

"Potential of Brewed Red Betel Leaves Powder and Black Tea Against LDL Levels of Hyperlipidemia Rats"

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ABSTRACT

Hyperlipidemia is a condition of lipid profile abnormality because of the increase of total cholesterol, LDL and triglyceride levels in the blood. Brewed red betel leaf powder and black tea contain antioxidant flavonoids that can help reduce LDL levels in the blood. The purpose of this study was to determine the potency of steeping red betel leaf powder and black tea on LDL levels in hyperlipidemic rats. This study used True Experimental with a Pretest-Posttest design with Control Group Design. The sampling technique used was random sampling with a total sample of 27 rats which were divided into 3 groups. The negative control group was given a standard diet, the positive control group was given high-fat feed and 27.5% fructose solution for 45 days followed by the completion of the study, and the treatment group who was exposed to hyperlipidemia was given high-fat feed, 27.5% fructose solution and infused leaf powder. Red betel as much as 16.05 ml / kgBB for 28 days. The results of this study were analyzed using one way ANOVA test and Paired T-Test. The results showed that there was no significant difference between groups of rats both before ($p = 0.960$) and after the intervention ($p = 0.342$). There was no significant reduction in LDL levels in the treatment group before and after the intervention ($p = 0.371$). The conclusion is steeping red betel leaf powder and black tea with a dose of 16.05 ml / kgBB does not have the potential to change LDL levels in rats with normal LDL levels.

Keywords: *Flavonoids, hyperlipidemic, LDL levels, red betel leaf*