

***The Potential of Red Betel and Black Tea Leaves Powder Brewed Against Total Cholesterol Hypelipidemia Rats***

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**ABSTRACT**

*Hyperlipidemia is a condition characterized by excess blood lipids, one of which is the increase in total cholesterol levels. For hyperlipidemia patients total cholesterol levels rise to > 200 mg / dL. One effort to reduce total cholesterol levels by consuming brewed of red betel leaf powder and black tea containing flavonoids. Flavonoids can reduce cholesterol synthesis by inhibiting the action of HMG-CoA reductase, which plays a role in the liver. The purpose of this study was to determine the potential of red betel leaf powder and black tea brewed to reduce total cholesterol levels in hyperlipidemic rats. True Experimental research methods with Pretest-Posttest Control Group Design. The number of samples used was 27 male Wistar rats. Random sampling into 3 groups such as K(-) is given a standard diet, K(+) is conditioned hyperlipidemia given a high-fat feed (standard feed, quail egg yolk, and butter) as much as 20 gr/head/day and fructose solution 27,5%, and P is conditioned hyperlipidemia with a high-fat feed as much as 20 g/head/day and fructose solution 27,5% then given intervention of red betel leaf powder and black tea brewed as much as 16,05 ml/kgBB for 28 days. The results were analyzed using the One Way Anova test and the Paired t-test. The research results obtained an average total cholesterol level before intervention in K(-) group of 73,00 mg/dL, K(+) was an average of 83,66 mg/dL, P of 68,55 mg/dL, and an average total cholesterol levels after intervention in K(-) group was 46,11 mg/dL, K(+) was 53,77 mg/dL, was P of 54,33 mg/dL. The conclusion of this study is that there is no significant difference in total cholesterol levels between groups of rats after the intervention, this indicates that there is no potential in the provision of steeping red betel leaf powder and black tea to reduce total cholesterol levels in hyperlipidemic rats.*

*Key words: Black tea, flavonoids, hyperlipidemia, red betel leaf, total cholesterol.*