

***The Potential of Steeping Red Betel Leaf Powder and Black Tea
on Trygliceride Levels of White Rats Hyperlipidemia***

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ABSTRACT

Hyperlipidemia occurs due to changes in lipid metabolism characterized by increased lipid profile in the blood one of which is triglyceride. Steeping red betel leaf powder and black tea contain antioxidant flavonoids which can help reduce triglyceride levels. Flavonoids contained in red betel leaves can increase lipoprotein lipase activity that affects serum triglyceride levels. This study aims to determine the potential of steeping red betel leaf powder and black tea against triglyceride levels of hyperlipidemic white rats. This type of research is a quasy experiment with a non randomized pretest-posttest with a control group design. This study used 27 male Wistar rats weighing between 150-300 grams, aged 2-3 months. Rats were divided into 3 groups. The negative control group was given a standard diet, the positive control group was given a high-fat diet and fructose solution, and the treatment group was given a high-fat diet, fructose solution, and steamed red betel leaf powder and black tea at a dose of 16.05 ml/kg/day for 28 day. Triglyceride levels were measured by the GPO-PAP (Glycerol Phosphate oxidase-phenyl amino pyrazolone) method. Data were analyzed with One Way ANOVA test followed by Post Hoc, and Paired T-test. Decreased triglyceride levels in the treatment group by 4.00 mg / dL (4.9%). There was no significant difference in blood triglyceride levels in rats before and after treatment ($p = 0.696$). The result of the difference test $p = 0.022$, there were differences between groups. Providing steeping red betel leaf powder and black tea has the potential to reduce triglyceride levels in rats with normal triglyceride levels.

Keywords: Hyperlipidemia, Tryglicerida, Red Betel Leaves, Black Tea.