

Effect of Giving Gembili Flour Snack Bar and Soybean Flour on LDL Levels of White Rats Wistar Hypercholesterolemia.

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ABSTRACT

Hypercholesterolemia is a condition of increasing the concentration of cholesterol in the blood that exceeds the normal value, which is <200 mg/dl. Hypercholesterolemia includes abnormalities of the lipid fraction in the blood or better known as dyslipidemia. Dyslipidemia is a lipid metabolism disorder characterized by an increase or decrease in the lipid fraction in the blood, one of which is an increase in Low Density Lipoprotein (LDL) levels. The increase in LDL levels in dyslipidemia is caused by an increase in free fatty acid levels in plasma which can increase VLDL secretion by the liver. Non-pharmacological therapy can be done by consuming high-fiber foods, namely snack bars with gembili flour and soybean flour which contain 7.16% fiber. The purpose of this study was to analyze the effect of providing snack bars with gembili flour and soybean flour on LDL levels of hypercholesterolemic wistar white rats. This type of research is a True Experimental study with a Pretest-Posttest Control Group Design approach. This study used a sample of 18 rats, aged 2-3 months with a body weight of 150-250 g which were divided into 3 groups, namely group K(-), group K(+), and treatment group. Group K(-) was only given standard rat bio feed. The K(+) group was fed a high-fat diet, PTU 0.01%, simvastatin, and a bio-standard feed. While the P group was given a high-fat diet, PTU 0.01%, simvastatin, snack bar as much as 0.9 g/head/day, as well as standard feed rat bio. The results showed that there was no difference in LDL levels before and after the intervention in the K(-) group ($p = 0.115$), the K(+) group ($p = 0.528$), and the P group ($p = 0.462$). So it can be concluded that giving gembili flour and soybean flour snack bars has no effect on LDL levels.

Keywords : *Hypercholesterolemia, LDL levels, Gembili flour snack bar and soy flour.*