

The Effect of Melon Seed (*Cucumis melo L.*) Powder on Total Cholesterol Levels in Male White Rats (*Rattus norvegicus*) Strain Wistar Dyslipidemia

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ABSTRACT

*Dyslipidemia is a condition in which there is an abnormality of lipid and lipoprotein metabolism in the blood which shows abnormal levels characterized by an increase or decrease in the lipid fraction in the main plasma, namely an increase in total cholesterol levels, Low Density Lipoprotein (LDL) cholesterol, triglycerides, and a decrease in High cholesterol. Density Lipoprotein (HDL). Abnormal cholesterol levels can be lowered by consuming foods that contain antioxidants such as flavonoids. The mechanism of action of flavonoids is by inhibiting the activity of HMG CoA reductase as a catalyst for cholesterol formation, reducing the activity of the enzyme acyl-CoA cholesterol acyltransferase (ACAT), and reducing cholesterol absorption in the digestive tract. The flavonoid content in the Sakata type melon seed flour is 114 mg / 100 grams. This study aims to determine the effect of melon seed flour (*Cucumis melo L.*) on total cholesterol levels in male white rats *Rattus norvegicus* Galur Wistar dyslipidemia. The type of this research is True Experimental with the design of Pre Test - Post Test with Randomized Control Group Design. The samples used were 24 rats divided into 3 groups, namely the negative control group (K-) was given standard feed and water ad libitum, the positive control group (K +) was given standard feed + high fat feed in the form of PTU and quail egg yolk respectively. 2 ml / 200 g BW of rats, and the treatment group (P) were given standard feed + high fat feed + melon seed flour at a dose of 8.7 g / 200 g BW of rats. Induction of high fat feed was given for 45 days and intervention of melon seed flour was given 2 times / day for 14 consecutive days. The data were analyzed using the one way ANOVA test followed by the post hoc Tukey test, and the paired T-test. Melon seed flour did not significantly affect the decrease in total cholesterol levels $p = 0.0872$ ($p > 0.05$).*

Keywords: *Dyslipidemia, Melon Seed (*Cucumis melo L.*) Powder, Total Cholesterol Levels.*