Effect of Giving Pumpkin Enteral Formula on LDL Cholesterol Levels in Male Rats Wistar Dyslipidemia

Magea Celossia Magentakara

Clinical Nutrition Study Program Department of Health

ABSTRACT

Dyslipidemia is a condition where there is a change in lipid levels which is characterized by an increase in LDL cholesterol levels, with an increase in dense and small LDL particles, an increase in triglycerides and a decrease in HDL cholesterol levels. Dyslipidemia occurs when total cholesterol levels are 240 mg/dl, LDL 190 mg/dl, HDL 60 mg/dl, triglycerides 200-499 mg/dl. Dyslipidemia can lead to acute myocardial infarction, which can lead to coronary heart disease. Nonpharmacological therapy is done by providing intake of high-fiber nutrients that can reduce LDL levels in the blood. One of the high-fiber foods is an enteral formula using 10 grams of pumpkin flour which contains 6.2 grams of fiber. The purpose of this study was to determine the effect of pumpkin enteral formula on LDL cholesterol levels in rats. This type of research is True Experimental with Pretest-Posttest with Control Group Design. The samples used were male Wistar rats (Rattus Novergicus), totaling 15 individuals aged 2-3 months weighing 100-300 g which were divided into 3 groups, namely the negative control group (K-), positive control (K+) and the experimental group. (P). The negative control group (K-) was only given standard feed. The positive control group (K+) was given HFD using beef tallow (10%), used cooking oil (20%), and quail egg yolk (20%) and standard feed. The treatment group (P) was given HFD, pumpkin enteral formula and standard feed. The results showed that there was no difference in LDL cholesterol levels before and after the intervention in the negative control group (p = 0.233), positive control (p = 0.060), and there was a significant difference in the treatment group (p = 0.042). So it can be concluded that there is an effect of giving pumpkin enteral formula on LDL cholesterol levels of dyslipidemic male Wistar rats.

Keywords: Enteral formula, Pumpkin, LDL cholesterol, Dyslipidemia