

The Effect of Giving Red Dragon Fruit Peel Juice Jelly Drink on Total Cholesterol Levels in Dyslipidemic Wistar Rats

Alya Ridla Arifi

Clinical Nutrition Study Program

Departemen of Health

ABSTRACT

One of the habits of Indonesians today is to consume fast food excessively, which can increase the lipid profile in the body. One of the efforts that can be done to overcome this is by consuming foods that are rich in vitamin C and antioxidants, such as dragon fruit and lemon. This study aims to determine the effect of giving jelly from red dragon fruit peel juice and lemon on total cholesterol levels in rats with dyslipidemia conditions. The type of research used is true experimental design with a pretest-posttest control group design approach and sampling is done by random sampling. The sample consisted of 27 Wistar white rats. The treatments given include: negative control group (K-): given standard Rat Bio feed as much as 20 grams per day and drinking water ad libitum; positive control group (K+): given high-fat feed as much as 20 grams per day and drinking water ad libitum; and treatment group (P): given high-fat feed as much as 20 grams per day and drinking water ad libitum and jelly drink from red dragon fruit peel juice and lemon as much as 12 ml per day per 200 grams of body weight. The results obtained showed that there was a significant difference in total cholesterol levels between the pretest and posttest results in the K- and K+ group rats compared to the treatment group ($p = 0.000$). The difference analysis showed that there was a significant difference in total cholesterol levels in the K+ group ($p = 0.012$) and the treatment group ($p = 0.012$) between pretest and posttest, but there was no significant difference in the K- group ($p = 0.246$). There was also a significant difference in the difference in total cholesterol levels between groups K-, K+, and treatment between pretest and posttest ($p = 0.000$). Thus, the administration of jelly drinks from red dragon fruit peel juice and lemon has an effect on reducing total cholesterol levels in rats induced with high-fat diet (HFD).

Keywords: *Total Cholesterol, Jelly Drink, Dyslipidemia White Rats*