The Effect of Giving Red Dragon Fruit Syrup on LDL Levels in Hypercholesterolemic White Rats

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ABSTRACT

Hypercholesterolemia is a condition of increased cholesterol levels in the blood that exceeds normal limits. Hypercholesterolemia has a close relationship with an increase in LDL cholesterol levels. One alternative nutritional therapy to reduce LDL levels is by consuming functional drinks that contain antioxidants such as red dragon fruit syrup. The purpose of this study was to determine the effect of red dragon fruit syrup on LDL levels in hypercholesterolemic white rats. This type of research is true experimental, *pretest posttest with control group design*. The samples were 15 male wistar rats, aged 2-3 months and weighing 130-230 grams. Rats were divided into 3 groups, namely negative control (K-) given *rat bio* and drinking water *ad libitum*, positive control (K+) given *rat bio*, quail egg yolk 2 ml/rat/day and PTU 0.01% for 28 days, and the treatment group (P) was given *rat bio*, quail egg yolk 2 ml/rat/day, PTU 0.01% and red dragon fruit syrup 10.3 ml/rat/day given 3 times a day for 14 days. LDL levels were measured by the CHOD-PAP method. Data were analyzed by *One Way Anova*, *Kruskall Wallis,* and *Wilcoxon* tests. The results of the *pretest* LDL level test showed that there was no significant difference (p=0.080). The results of *posttest* LDL levels showed that there was no significant difference (p=0.243). The results of the LDL level test between the *pretest* and *posttest* in the treatment group showed that there was a significant difference (p=0.043). There was no significant difference between the *pretest* and *posttest* LDL levels (p=109). The conclusion of this study, red dragon fruit syrup has no effect on LDL levels in hypercholesterolemic white rats.

Key words : Hypercholesterolemia, LDL Cholesterol, Red Dragon Fruit Syrup