Differences Of Giving Additional Sugar Solution And Palm Sugar Solution On White Rats Fasting Blood Sugar Levels Wistar Flow (Rattus norvegicus)

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ABSTRACT

Sugar is a simple carbohydrate because sugar can be dissolved in water and directly absorbed by the body, then converted into energy. The mechanism of the relationship between carbohydrate intake and blood sugar levels is that carbohydrates are broken down and absorbed can cause an increase in blood glucose levels. The purpose of this study was to analyze the difference between the administration of granulated sugar and palm sugar on fasting blood sugar levels of wistar (Rattus norvegicus) white rats. This type of research is true experiment with pretest posttest with control group design. This study used 25 male wistar rats aged 2-3 months with a body weight of 150-250 grams. The rats were divided into five groups, namely the control group, P1 (4.5 grams of palm sugar solution), P2 (4.5 grams of granulated sugar solution), P3 (2.25 grams of palm sugar solution), and P4 (2.25 grams of granulated sugar solution) given once daily for 28 days. Data analysis used the Shapiro Wilk normality test, One Way Anova test and Paired T-Test. The results showed that there was no difference in fasting blood sugar levels between groups before treatment (p = 0.391), no differences in fasting blood sugar levels between groups after treatment (p = 0.391) and there were differences in fasting blood sugar levels in P3 before and after treatment. (p=0.043). The conclusion of this study is that at a normal dose of 4.5 grams and 2.25 grams of palm sugar and granulated sugar are both safe to consume as long as the dosage is within normal/safe limits and according to the body's needs.

Keywords : *Additional Sugar, Palm Sugar and Fasting Blood Sugar Levels*