

***Effect Of Giving High Fructose Corn Syrup ON
White Rats Fasting Blood Sugar Levels
Wistar Flow (Rattus norvegicus)***

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ABSTRACT

Fructose is a simple sugar found in fruits, vegetables and beverages as well as sweet foods in the form of high fructose com syrup (HFCS). Fructose is used as an artificial sweetener made from corn by using chemicals and enzymes to hydrolyze corn starch in corn syrup, usually found in some foods and beverages like soft drinks, pastries, cookies, gums, jelly, dessert in the form of high fructose corn syrup (HFCS). In this study, the type of fructose used is HFCS-55. HFCS-55 was chosen because it is often used in food. The purpose of this study is to menganalisis of the influence of giving High Fructose Corn Syrup against fasting blood sugar levels of white rats of the wistar strain (Rattus norvegicus Strain wistar). This research is of a kind pure experimental (true experimental) with pretest posttest research plan with control group design. This research used 27 male wistar rats aged 2-3 months with a weight of 150-250 grams. Mice were divided into three groups. Control was given standard feed, P1 was given standard feed and HFCS as much as 0.009 ml/day, and P2 was given standard feed and HFCS as much as 0.045 ml/day. HFCS is given once a day for 8 weeks. Fasting blood sugar levels were checked with the Enzymatic End Point method. Data were analyzed using One Way Anova test, Post Hoc test, and Paired T-Test test. The results show there were differences in pre-test and post-test blood sugar levels in the control group and the P1 group ($p < 0.05$) in group P2 no there is a difference in pre-test and post-test blood sugar levels ($p > 0.05$), there was no difference between pre-test and post-test fasting blood sugar levels ($p > 0.05$). So it can be concluded that there is no effect of HFCS administration on fasting blood sugar levels.

Keywords : Fructose, High Fructoce Corn Syrup, Fasting Blood Sugar