Effect of *High Fructose Corn Syrup* on Wistar Strain White Rat Triglyceride Level (*Rattus Norvegicus*)

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ABSTRACT

High Fructose Corn Syrup (HFCS) is a sweetener used in almost all packaged beverages. HFCS comes from cornstarch as a raw material and has a liquid texture like syrup. The type of HFCS used in food and beverages is HFCS-55. The purpose of this study was to analyze the effect of giving High Fructose Corn Syrup on the triglyceride levels of white rats wistar strain (Rattus norvegicus Strain wistar). This type of research is true experimental with research design prestest posttest with control group design. The samples used in this study were 27 male wistar strain white rats with inclusion criteria, namely healthy rat (actively moving), rat age 2-3 months, rat weight between 150-250 grams and normal rat triglyceride levels of <150 mg / dL. The samples were grouped into 3 groups. The control group was given a standard diet of 20 g/head/day Rat Bio feed and ad libitum water, treatment group 1 was given HFCS-55 orally at a dose of 0,009 ml/day, standard diet and ad libitum water, and treatment group 2 was given HFCS-55 orally at a dose of 0,045 ml/day, standard diet and ad libitum water. Granting of HFCS-55 is given 1 time / day for 8 weeks. Triglyceride level data was analyzed using the One Way Anova and Kruskal Wallis tests as well as the Paired T-test. The results showed that the control group (K) showed no significant difference (p=0.424), for treatment group 1 and treatment 2 there was a significant difference with values (p=0.010) and (0.032). Granting of HFCS-55 as much as 1 time / day for 8 weeks at doses of 1% and 5% has no effect on the triglyceride levels of white rats wistar strain so that the dosage recommendation is still safe to consume as recommended by WHO

Keywords: HFCS-55, Triglyceride levels, Rattus Norvegicus.