

Cocoa Powder Intervention Against HDL Levels on White Rat Wistar Dyslipidemia (Cocoa Powder Intervention Against HDL Levels on White Rat Wistar Dyslipidemia)

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ABSTRACT

Dyslipidemia is a disease caused by the metabolic processes of fat, causing the body's HDL (*high density of lipoprotein*) to decrease. Cocoa powder is one of the ingredients that can be used as non-pharmacological therapy for dyslipidemia. Cocoa powder has a flavonoid content. The flavonoid is a group of polyphenous compounds that can prevent lipid oxidation. The goal of the study is to learn how cacao powder intervention affects the change of HDL levels on white rat wistar dyslipidemia. That kind of research was true experiment with pretest-posttest with control group design. Research will be conducted June through September 2019 at the jember university dental school of dentistry school. The sample used by 25 male sex white rat wistar, is from 2-3 months old, weighing 18-250 grams. The sample is composed of a negative control group (K-) given ratbio feed, a positive control (K+) of rats inducing dyslipidemia, treatment group (P1, P2, P3) rats that inducted dyslipidemia and were given an intervention from cacao powder. Induction of dyslipidemia uses HCHFD feed as much as 30 g/ day/rat and a 2ml/ yolk sonde. Intervention with cocoa powder on 1 (P1) treatment at 1 (P1) dose of 1.7 g/ day, treatment 2 (P2) at a dose of 1.9 g/ day, treatment 3 (P3) with a dose of 2.1 g/ day in a sonde manner. Results in average HDL levels pretest on K- = 46.2 mg/dl, K+ = 55.4 mg/dl, P1 = 49.6 mg/dl, P2 = 53.4 mg/dl, P3 = 56.8 mg/dl, value (p= 0.295) and the average level of HDL postest to group K- = 47.6 mg/dl, K+ = 48 mg/dl, P1 = 43.8 mg/dl, P2 = 53.2 mg/dl, P3 = 49.8 mg/dl, value (p= 0.362 mg/dl). There is no difference in HDL levels before or after the intervention of cocoa powder and there is no significant difference of the value (p= 0.209).

Key words: dyslipidemia, HDL level, and cocoa powder.