POTENTIAL LINOLEIC ACID IN DAIRY MILK TO HIGH DENSITY LIPOPROTEIN (HDL) AND LOW DENSITY LIPOPROTEIN (LDL) CHOLESTEROL LEVELS OF RATS (Rattus norvegicus)

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ABSTRACT

This research was aimed to identify the effects of linoleic acid in dairy milk to cholesterol, HDL and LDL levels of Rat (Rattus norvegicus)’s blood serum. The Rats (Rattus norvegicus), three months old, and weighing 150-200 grams were used. The rats were divided into six treatments of four Rats in each group. P_0 (The control treatment) received water and standard feeds; P_1, P_2, P_3, P_4, P_5 were fed by standard feeds and dairy formula milk 0, dairy formula milk 1; dairy formula milk 2; dairy formula milk 3; and dairy formula milk 4. Those treatments were performed for twenty-one days after they were adapted for a week. Then continued by blood sample test using CHOD-PAP method in order to identifying HDL and LDL-cholesterol levels of Rat’s blood serum. The experiment designed was Complete Randomize Design through six treatments and four repeating performed by ANOVA’s F-test. And it continued by Duncan’s Multiple Range test to identify the best results among the treatments. The results showed that the HDL cholesterol levels were increased significantly (p<0.05), and the LDL cholesterol levels were increased but statistically not significant. In conclusion, using Milk can be useful for prevent of cardiovascular disease.

Keywords: Cholesterol, HDL, LDL, linoleic acid, milk.