ABSTRACT

Hevi Pujianingsih L.H, B4109240. Department of Health Studies Program Clinical Nutrition. APPLE VINEGAR REDUCTION EFFECT ON BLOOD LEVELS KOELSTEROL SWISS WEBSTER Mice (Mus musculus L) hypercholesterolemia. Supervising Commission, Chairman: Agustina Endah W. S.Sos. M.Kes, Members: Ir. Rindiani, MP

BACKGROUND: Excess cholesterol in the blood is one of the major problems faced by the people of Indonesia in the past 10 years. Excess cholesterol in the blood will lead to heart disease and stroke (Sanif, 2008). Apple cider vinegar is the most excellent source of soluble fiber, cholesterol and fat free, and contains sodium. Inside there is a substance that apple cider vinegar can help lower blood cholesterol levels, namely pectin. Pectin is a polymer of glucose and galakturonat acid (a derivative of galactose) with the amount of acid galaktonat more. The content pectin also effective in suppressing blood vessel blockage (LDL) cholesterol and raise levels of functioning for the body (HDL) (blogger, 2012). This study aimed to determine the effect of Apple Vinegar in lowering blood cholesterol Swiss Webster mice (Mus musculus) hypercholesterolemia. RESEARCH METHODOLOGY: This was an experimental laboratory study with pre and post test controlled group design conducted in the Laboratory of Biomedical Faculty of Dentistry (FKG), State University of Jember. 24 mice were randomly divided into four treatment groups, namely the positive control, P1, P2 and P3. The study was conducted for 35 days, previously adapted for a week in advance with a standard feed.

RESULTS: The results obtained in the pre-test statistical test results obtained at p = 0.776, while the post-test obtained p = 0.145. In the paired t-test statistic tests for each treatment is the positive control obtained t-test p = 0.161. At a dose of apple cider vinegar treatment I 0,078 cc / day obtained t-test p = 0.002. At a dose of apple cider vinegar treatment II 0.0975 cc / day obtained t-test p = 0.0176 and the apple cider vinegar treatment dose III 0,117 cc / day obtained t-test p = 0.004. To the percentage decrease in the blood cholesterol levels, decrease consumption of apple cider vinegar with the first dose of 0.078 cc / day of 8.1%, decrease in consumption of apple cider vinegar with a second dose of 0.0975 cc / day by 13.7% and consume apple vinegar with dose III 0,117 cc / day of 17.3%

CONCLUSION: Provision of apple cider vinegar with the third dose (0,117 cc / day) was more effective than the first dose (0,078 cc / day) and dose II (0.0975 cc / day).

Keywords: Apple Vinegar, Blood Cholesterol in Mice