ABSTRACT

Fitria weri Ernawati. B4109216. Effect of Tempeh Sausage To Decrease Total Cholesterol Swiss Webster mice (Mus musculus L.) with High Cholesterol Diet. Final Project, Department of Health State Polytechnic Jember. Commission Advisor, Chairman: Agustina Endah W., S. Sos. M. Kes, Member: dr. Arisanty Nur Setia Restuti.

Tempe is a fermented food ingredient of soy beans using fungal *Rhizopus oligosporus* and *Rhizopus oryzae* have protein, fiber and isoflavones which proved to have an effect hypocholesterolemic, because the functions that can lower cholesterol levels, these compounds may function in preventing atherosclerosis. Isoflavones protect the body from radical damage and reduce the risk of hardening of the arteries. This study aims to determine the effect of of Tempe Sausage To Decrease Total Cholesterol Swiss Webster mice (Mus musculus L.) with High Cholesterol Diet. This study is the laboratory experimental with *Group Pretest And Posttest Design.* The study sample was male mice species (*Mus musculus L.)* aged 2-3 months who were given a high-cholesterol diet for 14 days, on the 15th day of the examination total cholesterol pre test, then on the 16th day was given for 21 days tempeh sausage (n=25), The samples were divided into five treatment levels namely, the positive control (P_1), high-cholesterol diet + 0,026 grams of the drug simvastatin (P_2),), high-cholesterol diet + 0,5 grams tempeh sausage (P_3), high-cholesterol diet + 0,75 grams tempeh sausage (P_4) dan high-cholesterol diet + 1 grams tempeh sausage (P_5). At the end of the study, total cholesterol level examination post test. The research data using one way ANOVA statistical test which showed that administration of fermented soybean in mice fed a high-cholesterol diet have a significant effect on total cholesterol reduction ($p>0,05$). The conclusion of this study is fermented soybean can lower blood total cholesterol was significantly.

Keywords: tempeh sausage, high cholesterol diet, total cholesterol