

THE EFFECT OF GARLIC EXTRACT (*Allium sativum* L.) TO LOW DENSITY LIPOPROTEIN (LDL) LEVEL OF WHITE MALE RAT (*Rattus novergicus*) Sprague Dawley STRAIN GIVEN HIGH FAT DIET

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ABSTRACT

Risk factors of formation of atherosclerosis plaque are hypertension, dyslipidemia, hyperglycemia, obesity, smoking, sedentary life, bad diet, alcoholic, and genetic factor. Garlic have beneficial effects on atherosclerosis risk factor such as dyslipidemia, hypertension, and hyperglycemia. The objective of this study is to determine the effect of garlic extract to the depletion of LDL level of rat given high fat diet.

The 28 days study of the effect of garlic extract was investigated in a post test-only control group in 25 white male rats (*Rattus novergicus*) Sprague Dawley strain divided into 5 group (5 rats each). The negative control group (N) was given standard diet. Positive control group (KT) was given high fat diet. P1, P2 and P3 group was given high fat diet plus garlic extract 0.5 ml, 0.025 ml and 0.1 ml. Statistic results of this study is *One-Way ANOVA* showed $p < 0,05$ ($p = 0,024$). *Post hoc* in N-KT ($p = 0,912$), KT-P1 ($p = 0,769$), KT-P2 ($p = 0,535$) showed no significant mean different. KT-P3 ($p = 0,015$) showed significant mean different.

Conclusion of this study is garlic extract statistically showed no significant result in the depletion LDL level

Keywords: Dyslipidemia, garlic, LDL level