

**The Effect of Lamtoro Seed Flour on LDL Cholesterol Levels
in Rats (*Rattus Norvegicus*) Wistar Strain
Induced High Fat Diet**

Ratna Nurul Hidayah
Clinical Nutrition Study Program
Health Programs

ABSTRACT

*High levels of LDL cholesterol are a risk factor for atherosclerosis, which causes coronary heart disease and stroke. Consuming foods high in fat can lead to high LDL cholesterol. Lamtoro seed flour contains antioxidants that can counteract free radicals so that it can minimize the formation of oxidized LDL. The purpose of this study was to determine the effect of giving lamtoro seed flour to changes in LDL cholesterol levels in the blood in rats (*Rattus norvegicus*) wistar strain induced by High Fat Diet. The type of research used is experimental with Pretest-Posttest design with Control Group. The samples used were 15 male wistar rats, aged 2-3 months and weighing 150-200 grams. Samples were taken randomly and divided into 3 groups: the negative control group (K-) was given the Rat Bio standard diet, the positive control group (K+) was given the High Fat Diet (HFD) duck egg yolk and PTU, and the treatment group (P) was given High Fat Diet (HFD) and lamtoro seed flour as much as 2.5 g/kgBW/day for 14 days. Data were analyzed using One Way Anova, Post Hoc, Kruskal Wallis, Mann Whitney, Paired T-test and Wilcoxon tests. The results showed that there were differences in LDL cholesterol pretest ($p = 0.012$), posttest ($p = 0.025$), was no difference pretest and posttest LDL cholesterol in the three groups and there was no difference between pretest and posttest LDL cholesterol ($p = 0.703$). The conclusion of this study is that there is no effect of giving lamtoro seed flour to changes in blood LDL cholesterol levels in Wistar strain rats (*Rattus norvegicus*) induced by High Fat Diet.*

Keywords: *High Fat Diet, LDL Cholesterol Levels, Lamtoro Seed Flour*