

ABSTRACT

Background: Hypertension is a condition when the systolic blood pressure is more than 140 mmHg and the diastolic blood pressure is more than 90 mmHg. According to Riset Kesehatan Dasar (Riskesdas), the prevalence of hypertension is getting higher every year. The relationship between LDL, TG, and total cholesterol with hypertension is that high LDL, TG, and total cholesterol can be at risk of hypertension. Polyherbal has been used to treat hypertension in Indonesia which contains garlic (*Allium sativum*), jelawe (*Terminalia belirica*), temu ireng (*Curcuma aeruginosa rhizome*), and buah kapulaga (*Amomum compactum fructus*) extracts.

Objective: This study aims to determine the effect of polyherbal tablets on LDL, TG, and total cholesterol in rat model of hypertension.

Methods: The subject is a rat model of hypertension randomized and divided into four groups that normal control, polyherbal preparation 63 mg/kg, 126 mg/kg, and 252 mg/kg treatment. The treatment started after the rat had hypertension developed and was given for 6 weeks. LDL, TG, and total cholesterol levels were measured using commercially available enzymatic colorimetric test kits. R software in RStudio was then used for statistical analysis.

Result: The result showed that the mean of TG in DOSE 3 group was significantly higher compared with all of group ($p < 0,05$). The mean of LDL and total cholesterol was no significant compared with all of group ($p > 0,05$).

Conclusion: Antihypertensive polyherbal showed no significant lipid-lowering effect on LDL and total cholesterol, but high-dose treatment increased TG levels.

Keywords: Polyherbal, Hypertension, TG, Cholesterol, LDL, *Allium sativum*, *Belericacae fructus*, *Curcuma aeruginosae*, *Amomi fructus*.