ABSTRACT

ANTIHYPERCHESTEROL ACTIVITY OF DRY EXTRACT OF BITTER LEAF (*Vernonia amygdalina* Delile) IN ALLOXAN INDUCED MICE (*Mus musculus*)

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Hypercholesterolemia is a disease of cholesterol metabolism disorder. Conventional drug therapy reported to have side effects in long term use. The purpose of this research was to study the role of bitter leaf (*Vernonia amygdalina*) ethanol dry extract in lowering cholesterol and LDL levels. 30 mice (*Mus musculus*) were divided into six groups of five mice each. Positive control group was treated with Atorvastatin 0.026mg/20g BB, negative control group was given cornstarch and microcell suspension, group 1, group 2, and group 3 were treated with 5.6mg/20g, 8.4mg/20g, and 11.2mg/20g body weight of the dry ethanolic extract of *Vernonia amygdalina*, treatment was given daily for 7 days. To induced hypercholesterol, mice was fasted for 18h, alloxan monohydrate was given by intraperitoneal injections and fed on high-cholesterol diet. Prior to injection, alloxan was dissolved in citrate buffer (0.05M, pH 4.5).

Positive control group showed reduction of 76 mg/dL (±15.2381), group D1 showed reduction of 18 mg/dL (±9.2032), group D2 showed reduction of 13.2 mg/dL (±12.1383), group D3 showed reduction of 16.2 mg/dL (±2.7821). Data obtained was subjected to one-way analysis of variance followed by LSD test to determine the statistical significant of change in blood cholesterol level. There was no group that has significant difference with negative control groups (α= 0.05).

Keywords: *Vernonia amygdalina* Delile, antihypercholesterol, alloxan induced, high-cholesterol diet, atorvastatin