

ABSTRACT

Anticholestrole Activity from Combination Dry Extract of *Vernonia amygdalina* Delile leaves and *Garcinia mangostana* L. pericarpium in Alloxan Induced Cholesterol Mice

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Hypercholesterolemia has been associated with enhanced oxidative stress related to increase lipid peroxidation. Increased generation of oxidized LDL is a major factor in the vascular damage associated with high cholesterol levels. The present studies was done to evaluate combination of dried extract of *Vernonia amygdalina* Delile leaves and *Garcinia mangostana* L. pericarpium for antihypercholesterolemia activity in alloxan induced hypercholesterol mice. Alloxan was administered at 150mg/kg BW in buffer citrate to induce hypercholesterol.

Combination of dry extract *Vernonia amygdalina* Delile leaves and *Garcinia mangostana* L. pericarpium with ratio 1:1 ; 1:2 and 2:1 (9.4mg/20g BW mice), was administered orally for seven days on groups III, IV, V respectively. Standard drug Atorvastatin (0.052mg/20g BW mice) and CMC-Na 0,5% were administered orally to mice as positive and negative control.

After the treatment, group III and group V showed that the extract significantly reduce blood cholesterol level in hypercholesterol mice. Combination of dry extract from *Vernonia amygdalina* Delile leaves and *Garcinia mangostana* L. pericarpium with ratio 1:1 showed the highest reduction in blood cholesterol 102 ± 31.785 mg/dL. The combination with ratio 1:2 has no significant reduction with negative control group whereas in ratio 2:1 has significant reduction in blood cholesterol level with negative control group. The combination with ratio 2:1 showed reduction blood cholesterol level 70.32 ± 9.815 mg/dL. In the other hand, atorvastatin showed 98 ± 2.69 mg/dL of reduction blood cholesterol level. This results

indicated that dry extract from *Vernonia amygdalina* Delile leaves and *Garcinia mangostana* L. pericarpium have equal capability with standard drug atorvastatin to reduce blood cholesterol level in hypercholesterol mice.

Keywords : *Vernonia amygdalina* Delile, *Garcinia mangostana* L., antihypercholestrolemia activity, dry extract

