

Hypocholesterolemic and attenuated oxidized-LDL of epinephrine-induced atherosclerosis rats using cardamom rhizome ethanolic extract: Study of functional-food components

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Abstract	<p>This research was aimed to study the flavonoid level of cardamom-rhizome ethanolic-extract (CREE) and effect of the extract on the level of ox-LDL, total-cholesterol (total-c), and HDL-cholesterol (HDL-c) plasma of atherosclerosis Sprague dawleyrats induced by epinephrine and egg-yolk. Twenty-eight female Sprague dawley white rats, aged 2-3 months, weighted 180-250 g, were adapted. Twenty six rats were injected by adrenalin and were fed with egg yolk for three weeks so that their total-c were > 45,5 mg/dl and HDL-c plasma were < 35 mg/dl. The atherosclerosis rats were divided into 4 groups: I, 7 rats were given extract of CREE; II, 7 rats were given simvastatin; III, 7 rats were given CREE+ simvastatin; and IV, 7 rats were given rat feed. In addition, 5 healthy rats were given rat feed. Intervention was conducted for 2 weeks. Blood was sampled 3 times, 1 ml each time. The sampling was done through plexus Retroorbitalis at baseline, 1 and 2 weeks post intervention. CREE significantly reduced oxLDL level from 90.59 to 82.22 pg/ml and total-c from 57.89 to 38 mg/dl. In contrast, CREE increased HDL-c level from 25.66 to 32.9 mg/dl, which is lower than compared to treatment with statin, CREE-statin, or control. CREE was hypocholesterolemic, attenuated LDL-c oxidized, and repressed cardiovascular disease risk. In the future, the cardamom rhizome can be used as functional food component beneficial for health. (c) All Rights Reserved.</p>
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