

Antioxidative effects of *Pueraria mirifica* in cholesterol-fed rabbits

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White Kwao Krua (*Pueraria mirifica*) is a Thai rejuvenating folk medicine which contains many phytoestrogens including miroestrol, deoxymiroestrol and isoflavonoid group like kwakhurin, kwakhurin hydrate, daidzein, genistein which possess estrogenic-like activities. This study aimed to investigate the effect of White Kwao Krua on cholesterol level and the resistance of low density lipoprotein (LDL) to oxidation promoted by copper ion *ex vivo* in cholesterol-fed rabbits. Rabbits were fed diet containing no additive (control), 1% cholesterol (cholesterol group) or 1% cholesterol with 10 mg/kg/day extracted-White Kwao Krua (White Kwao Krua group) for 12 weeks. Plasma total cholesterol level (T-chol), LDL-cholesterol (LDL-chol), high density

lipoprotein-cholesterol (HDL-chol) and triglyceride were measured before treatment and every 4 weeks thereafter. White Kwao Krua reduced plasma T-chol (6% lower), LDL-chol (7% lower) and triglyceride (6% lower) significantly, but no altered HDL-chol level. Supplementation with White Kwao Krua significantly decreased the susceptibility of LDL to Cu^{2+} -mediated oxidation *ex vivo* by prolong the lag time from 121.8 ± 5.1 min in cholesterol group to 185.2 ± 3.5 min in White Kwao Krua group. The present studies indicate that dietary treatment with White Kwao Krua can improve blood lipid parameter in hypercholesterolemic rabbits and increase the oxidation resistance of LDL *ex vivo*.

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