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Antidyslipidaemic and Cardioprotective Effects of Turmeric (*Curcuma longa*) in Rat Fed: A High Cholesterol Diet

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ABSTRACT

A few foods of plant origin and plants species have been thoroughly evaluated for their therapeutic and/or toxicological profile. Foods or plants with medicinal value have proven to be most useful in the treatment of diseases in most of the developing countries, and they provide important sources of most of the world's pharmaceutical. The aim of this study is to evaluate the antidyslipidaemic and cardioprotective effects of aqueous extract of *Curcuma longa* (AECL) in rats fed a high cholesterol diet (HCD). Twenty (20) rats were randomly grouped into four groups: A-D of five animals per group. Groups A-C received HCD (2000 mg/kg, oral) and carbimazole (60 mg/kg, oral) daily for eight weeks. Group A served as negative control. Group B (positive control) was treated with atorvastatin (20 mg/kg), while group C served as treatment group and received AECL (400 mg/kg) daily for eight weeks. Group D served as normal control and received no treatment. After the administration, biochemical markers of Lipid profiles (total cholesterol (TC), triglycerides (TG) and high-density lipoprotein cholesterol (HDL-C)) were assayed using standard methods. The hearts of the rats were harvested for histopathological studies. AECL significantly induced hypolipidaemia and stabilized lipid biochemical markers ($p<0.05$ or $p<0.01$); and protected the cardiac muscle fibers from injuries. We conclude that tumeric (*Curcuma longa*) has antidyslipidaemic and cardioprotective effects.

Keywords: Antidyslipidaemia, Cardioprotection, *Curcuma longa*, Ethnopharmacology, Hypercholesterolaemia, Medicinal foods, Cardiomyopathy

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