

Efficacy of *Ganoderma lucidum* on plasma lipids and lipoproteins in rats fed with high cholesterol diet

Abstract

Purpose – The purpose of this paper is to report on the anti-cholesterol activities of *Ganoderma lucidum* on Sprague–Dawley white rats. **Design/methodology/approach** – Rats were divided into four groups with a sample size of six rats per groups. Different formula diets were given to each group for a period of six months. At regular intervals, blood samples were taken and analysed for the total cholesterol (TC), triglycerides (TG), high density lipoprotein cholesterol (HDL-C) and low density lipoprotein (LDL-C) levels. **Findings** – Administration of hyperlipidemia diet in rats fed with 1 per cent cholesterol diet caused an increase in the TC, TG, as well as LDL-C level as compared to the control. A decrease of 23.6 per cent in the HDL-C level was also noted. However, supplementation of the feed with *G. lucidum* (0.1 per cent) in rats decreased the TC, TG and LDL-C level significantly ($P < 0.05$) while further increased the plasma concentration of HDL-C. In the case of rats fed with diet containing a mixture of 1 per cent cholesterol and 0.1 per cent of *Ganoderma*, the lipid profile showed much higher readings ($p < 0.05$) compared to the chol group. **Practical implications** – The possible efficacy of *G. lucidum* in reducing the deposition of cholesterol in the wall of the blood vessels was indicated. **Originality/value** – This article provides useful information to health care providers and consumers.

Keyword: Diet, Alternative medicines, Malaysia