Antihyperlipidemic activity of ethanolic extract of Cassia auriculata flowers in hyperlipidemic male wistar rats.

Sivaprakasam Chinnarasu 1, Vijayaraj Panneer Selvam 1, Muthukumar Kannan 1 and Vasanthi Nachiappan 1.*

1 Biomembrane Lab, Dept.of Biochemistry, Bharathidasan University, Tiruchirappalli, India.

Disorders of lipid metabolism is mainly due to excessive fat storage, which is not only in adipose tissue but also in liver and arteries. Atherosclerosis is slow but there is progressive building up of plaque, fatty substances, and cholesterol in the arteries and primarily causes heart disease, stroke etc., a leading cause for death globally. The risk can be reduced by lowering the lipid levels and ayurvedic medicines contribute to the lipid lowering therapies with-out any side effects. Hence we chose Cassia auriculata L common plant in Asia and the flower extract of C. auriculata (CAF) to treat hyperlipidemia. C. auriculata has already been reported to possess anti-hyperglycaemic activity. The present study was undertaken to investigate the possible antihyperlipidemic effect of C. auriculata flowers. Hyperlipidemia was induced in rats by single intravenous injection of Triton WR 1339 (300mg/kg b.w). Different doses of the ethanolic extract of C. auriculata flower (Et–CAF) (150,300,450mg/kg/b.w/day) were administered to normal and hyperlipidemic rats for 14 days. Serum and liver tissue were analyzed for lipid profile and it was compared with cholesterol lowering drug, lovastatin (10mg/kg/b.w). Lipid profile that was altered during hyperlipidemia reverred back to normal values after Et-CAF treatment. Pronounced changes were observed at 450mg/kg b.w of Et-CAF after two weeks. The present study is strong evidence that Et-CAF active component lowers serum cholesterol and triglyceride and increases HDL levels in hyperlipidemia without known side effect at the dosages and durations studied.