

Antihyperlipidemic Activity of Butea Monosperma in Triton WR 1339 Induced Hyperlipidemic Rats

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Abstract : The flower extract of Butea monosperma herb has been used traditionally in India for medicinal purposes. The plant has been reported to treat hyperglycemia and associated hyperlipidemia. Hyperlipidemia and oxidative stress are known to accelerate coronary artery disease and progression of atherosclerotic lesions. The present work was undertaken to investigate the possible antihyperlipidemic and antioxidative effect of Butea monosperma flowers on hyperlipidemic rats. Hyperlipidemia was induced in rats by a single intraperitoneal (i.p.) injection of Triton WR 1339 (400 mg/kg) and it showed sustained elevated levels of serum cholesterol and triglyceride. Ethanolic extract of Butea monosperma flowers (Et-BM) (250 and 500 mg/kg/day) was administered to normal and hyperlipidemic rats for 14 days. Serum and liver tissue were analyzed at three different time intervals for lipid profile and antioxidants enzymes and the activity were compared to the cholesterol-lowering drug, Atorvastatin (10 mg/kg). Parameters were altered during hyperlipidemia and reverted back to near normal values after Et-BM treatment or standard drug Atorvastatin. Lipid peroxidation decreased whereas the activities of superoxide dismutase, glutathione peroxidase and catalase increased in Et-BM treated rats. Pronounced changes were observed at 500 mg/kg of Et-BM for 2 weeks and it was comparable to the standard drug Atorvastatin. The current study provides strong evidence that Et-BM has a remarkable beneficial effect in treating hyperlipidemia and ROS without any side effects at the dosage and duration studied.

Keywords : antioxidant, butea monosperma, hyperlipidemia, triton WR 1339

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