

The Saponin-Rich Fraction of a *Gymnema sylvestre* R. Br. Aqueous Leaf Extract Reduces Cafeteria and High-Fat Diet-Induced Obesity

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We examined the antiobesity effect of a saponin-rich fraction of a *Gymnema sylvestre* R. Br. aqueous leaf extract (SGE) using cafeteria and high-fat diet-induced obese rats for a period of eight weeks. SGE was orally administered at a dose of 100 mg/kg body weight once a day to the treatment group. It significantly decreased the body weight, food consumption, visceral organs weight, and the levels of triglycerides, total cholesterol, low-density lipoproteins, very low-density lipoproteins, atherogenic index, glucose, and increased the levels of high-density lipoproteins. There was no significant difference with respect to all parameters of the study in case of normal (N) diet and N diet + SGE rats. *In vitro*, SGE inhibited the pancreatic lipase activity. The present study gave clear evidence that the SGE has a significant antiobese action, supporting its use in traditional medicine, and can be used as a substitute for synthetic drugs.

Key words: *Gymnema sylvestre*, Cafeteria Diet, High-Fat Diet