

Evaluation of the effect of *Gymnema sylvestre* R. Br. dried powder leaves on human serum glucose levels: a clinical study

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Abstract

This clinical study aims at identifying the impact on Diabetes mellitus patients in lowering and stabilizing the high human serum glucose levels (8 hr fasting glucose level over 130 mg/dl). Ayurveda is a traditional health care system originated in India and awareness of the traditional medicine is increasing worldwide. Many herbal materials have been recommended in ancient texts. Although herbal materials have been identified as potential means of health preservation, it seems that the people are not aware of the importance of such materials, which are abundantly available in Sri Lanka. *Gymnema sylvestre* (Asclepiadaceae), popularly known as “gurmar” or “Masbedha” for its distinct property as sugar destroyer, is a reputed herb in the Ayurvedic system of medicine. *Gymnema sylvestre* R.Br. is a perennial, woody climber belonging to the family Asclepiadaceae or the “milk weed” family. The plant is found in tropical and subtropical regions, well distributed in parts of central and southern India and in Sri Lanka, the southern part of China, tropical Africa and Malaysia. *Gymnema sylvestre* is a slow growing herb, found ideally in tropical and subtropical humid climate and common in hills of evergreen forests. It is a climber and generally requires support for growth. In this clinical study sixty (60) patients both male and female in age group of 18-69 completed the study. They were divided into two groups of thirty (30) each and as group A and B. Group A, thirty (30) of them non-diabetic patients average fasting serum glucose level (85 mg/dl) and group B thirty patients (30) their pre-study average fasting glucose (160 mg/dl). The group A and B were instructed to take one gram (1g) of dried powdered leaves of *Gymnema sylvestre* mixed in one cup of hot water two (2) times per day, one in before lunch and one in before dinner for 30 days, and continued to monitor the fasting blood glucose through the study period. At the conclusion of the 30-day period, their levels were measured. Sixty participants of Group A and B completed the study. After the 30 days of the *Gymnema sylvestre* supplementation, mean of daily fasting serum glucose concentrations of Group A were 1.25% lower (85 vs 84 mg/dl), mean daily fasting serum glucose concentrations of Group B were 15% lower (160 vs 136 mg/dl). The results of the present reveal that the use of *Gymnema sylvestre* supplementation in all group A and B patients with positive result. It appears that the largest effect occurs from decrease of serum glucose levels of group B. This study evaluates its safe and efficient to administer *Gymnema sylvestre* in lowering and stabilizing the high human serum glucose levels.

Keywords: *Gymnema sylvestre*, Diabetes mellitus, serum glucose level

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