



Hypoglycemic Effect of Herbs on Type 2 Diabetic Patients: An Intervention Study

Sukhjinder Singh Ghotra¹, Nancy Sahni², Vikas Kumar³, Sanjay Kumar Bhadada⁴,
Amarjeet Singh⁵ and Sunita Malhotra⁶

^{1,2}Department of Dietetics, PGIMER, Chandigarh India

³Department of Food Tech and Nut, LPU, Punjab, India

⁴Department of Endocrinology, PGIMER, Chandigarh, India

⁵Department of Community Medicine, PGIMER, Chandigarh, India

⁶Department of Dietetics, PGIMER, Chandigarh, India

KEYWORDS BMI. Diabetes Mellitus. Fasting Blood Glucose. HbA1c. Postprandial Blood Glucose

ABSTRACT The present study was conducted to analyse the effect of five herbs (*Momordica charantia*, *Azadirachta indica*, *Gymnema sylvestre*, *Citrullus colocynthis* and *Berberis aristata*) on blood glucose levels in Type 2 Diabetes Mellitus patients. The method used for the study was a subjective evaluation. Subjects selected were taking an oral hypoglycemic drug and were willing to participate in the intervention study. Information regarding the name, age, religion, lifestyle pattern, was collected with the help of an interview schedule. Anthropometric parameters were collected prior to intervention to assess the nutritional status. Blood glucose levels were assessed before and after intervention period. Every day one gram of herbal powder was used as the intervention by the subjects in two the divided doses a period of three months. Total 56 subjects were enrolled, mean age 51±7.5 years. Age range was 35-65 years, out of which 39.3 percent (22) were male and 60.7 percent (34) were female. Fasting blood glucose level before and after the intervention was 161±47mg/dl and 120±29mg/dl respectively (p-value<0.001). Postprandial blood glucose level before and after the intervention was 231±81mg/dl and 162±32mg/dl respectively (p-value<0.001). Hb1Ac level of before and after the intervention was 9.2±2.1 percent and 7.5±1.2 percent respectively (p-value<0.001). Herbs had positive and encouraging effects over blood glucose levels. No adverse effect was observed on the health status of the subjects. These herbs were effective in lowering the fasting as well as postprandial blood glucose and HbA1c levels. These can be used as an adjunct for treatment of Type 2 Diabetes Mellitus patients.