

Original Communication

# Effect of Fenugreek Seeds on Blood Glucose and Lipid Profiles in Type 2 Diabetic Patients

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**Abstract:** *Background:* Recently use of herbal medicines, have been considered as an alternative for therapeutic usage. So, this study was undertaken to evaluate the hypoglycemic and hypolipidemic effects of fenugreek seeds in type 2 diabetic patients.

*Methods:* In a clinical trial study, 24 type 2 diabetic patients were placed on 10 grams/day powdered fenugreek seeds mixed with yoghurt or soaked in hot water for 8 weeks. Weight, FBS, HbA<sub>1c</sub>, total cholesterol, LDL, HDL and food record were measured before and after the study. The differences observed in food records, BMI and serum variables were analyzed using paired-t-test and t-student and  $P \leq 0.05$  was considered as significant.

*Results:* After exclusion of 6 cases for changing in medication or personal problems, the results of 18 patients (11 consumed fenugreek in hot water and 7 in yoghurt) were studied. Findings showed that FBS, TG and VLDL-C decreased significantly (25%, 30% and 30.6% respectively) after taking fenugreek seed soaked in hot water whereas there were no significantly changes in lab parameters in cases consumed it mixed with yoghurt. BMI, Energy, Carbohydrate, Protein and fat intake remained unchanged during study.

*Conclusion:* This study shows that fenugreek seeds can be used as an adjuvant in the control of type 2 diabetes mellitus in the form of soaked in hot water.

**Key words:** Fenugreek Seed, Diabetes Mellitus, Glycosylated Hemoglobin, Blood Sugar, Serum Lipids.

## Introduction

Diabetes mellitus is one of the major metabolic disorders, afflicting a large proportion of the population all over the world. It is recognized for sever complications, which include diabetic nephropathy, neuropathy and retinopathy (1). Type 2 diabetes may account for 90% to 95% of all diagnosed case of

diabetes. The primary goals for persons with type 2 diabetes are to achieve and maintain normal blood glucose and lipid levels (2). In any form of management of diabetes with insulin or drug, diet is a common factor. With respect to diet, plants and foods of medicinal value have proved to be very useful which one of them is fenugreek seed (3, 4).