

The investigation of changes in insulin resistance index in patients with type 2 diabetes under treatment with ginger as an adjuvant treatment

Majid Foroutan (MD)^{1 2*}, Maliheh Yarmohammadi^{1 2}

1 Department of Internal Medicine, Semnan University of medical Sciences, Semnan , Iran

2 Clinical Research Development Unit, Kowsar Educational, Research and Therapeutic Hospital, Semnan University of Medical Sciences, Semnan, Iran

Abstract

Background and Aim: Diabetes Mellitus is one of the most common metabolic diseases that manifests with increased blood sugar. The purpose of this study is to investigate the effect of ginger supplementation on blood sugar patterns and insulin resistance in patients with type 2 diabetes.

Methods: In this case-control study, 60 patients with type 2 diabetes referred to the diabetes clinic of Kowsar Hospital, Semnan Province (Iran) who had the inclusion criteria into the study were included in the study and divided into two groups (30 patients in the control group and 30 patients in the experiment group). The amount of FBS, HbA1c and insulin resistance before the onset of treatment and one month after the onset of treatment were measured from the patients' files and collected in a researcher-made form. The results were analyzed using SPSS version 24 software.

Results : In the group receiving ginger, 16 patients (26.7%) were male and 14 patients (23.3%) were female. Also, in the control group, 15 patients (25%) were male and 15 patients (25%) were female. There was observed no statistically significant difference in gender and age ($P \geq 0.05$). There was observed no statistically significant difference between the amounts of FBS, HbA1C and BMI in the two groups ($P \geq 0.05$). There was no statistically significant difference between the amounts of insulin concentration and also insulin resistance in the two groups ($P \geq 0.05$).

Conclusion: The results showed that the consumption of ginger for one month has no effect on glycemic indices, insulin resistance, serum insulin levels, and weight.

Keywords: : Ginger; Type 2 diabetes; Insulin resistance; HbA1C