The Effect of Nutrition Education on Glycemic and Lipidemic Control in Iranian Patients with Type 2 Diabetes

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Abstract : Objective: To evaluate the effects of nutrition education and adherence to a healthy diet on glycemic and lipidemic control in patients with T2DM. Material and Methods: A randomized controlled trial was conducted on 494 patients with T2DM, aged 14-87 years from both sexes who were selected by convenience sampling from referees to Aliebneabitaleb hospital in Ghom. The participants were divided into two 247 person groups by stratified randomization. Both groups received a diet adjusted based on ideal body weight, and the intervention group was additionally educated about healthy food choices regarding diabetes. Information on medications, psychological factors, diet and physical activity was obtained from questionnaires. Blood samples were collected to measure FBS, 2 hPG, HbA1c, cholesterol, and triglyceride. After 2 months, weight and biochemical parameters were measured again. Independent T-test, Mann-Whitney, Chi-square, and Wilcoxon were used as appropriate. Logistic regression was used to determine the odds ratio of abnormal glycemic and lipidemic control according to the intervention. Results: The mean weight, FBS, 2 hPG, cholesterol and triglyceride after intervention were significantly lower than before that (p < 0.05). Discussion: Nutrition education plus a weigh reducer diet is more effective on glycemic and lipidemic control than a weight reducer diet, alone.

Keywords: type 2 diabetes mellitus, nutrition education, glycemic control, lipid profile

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