DIABETES

A Mediterranean diet is best for type 2 diabetes mellitus

In comparison with a low-fat diet, a Mediterranean-style, low-carbohydrate diet delays the need for antihyperglycemic drug therapy in overweight patients with type 2 diabetes mellitus (T2DM). The randomized trial also shows that the Mediterranean diet provides additional benefits in terms of glycemic control and coronary risk.

A combination of lifestyle changes and pharmacotherapy are recommended for patients with newly diagnosed T2DM. However, neither approach is perfect. Pharmacotherapy may be associated with adverse effects and might fail over time, whereas lifestyle interventions often bring

about inadequate or unsustained weight loss. Realizing the need to enhance the effectiveness of dietary interventions for T2DM, Esposito *et al.* compared the effects of two diets recommended for this group of patients—low-carbohydrate or low-fat diets.

The researchers randomly allocated 215 overweight individuals with newly diagnosed T2DM who had never received antihyperglycemia drugs to one of two diets for 4 years: a low-carbohydrate, Mediterranean-style diet or a low-fat diet. The researchers used a traditional, coastal, Mediterranean-type diet, which is characterized by high consumption of

foods such as whole grains, vegetables and olive oil. Participants received dietary advice on a regular basis and self-reported dietary intake; they were also encouraged to increase their physical activity levels.

Need for antihyperglycemic drug therapy differed significantly between the two groups. At the end of the trial, 70% of the low-fat diet group required this therapy whereas only 44% of the patients in the Mediterranean diet group did. Both groups increased their physical activity level and decreased caloric intake to the same extent; therefore, the researchers suggest that the benefit of the Mediterranean diet might stem from early, increased weight loss and the consumption of monounsaturated fatty acids (which are believed to increase insulin sensitivity) in this group. Some measures of glycemic control and coronary risk factors also improved more in participants who received the Mediterranean than the low-fat diet.

As evidence mounts for the benefits of a Mediterranean-style diet for patients with T2DM, the researchers stress the need not to overlook diet and physical activity interventions for these individuals.

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Original article Esposito, K. *et al.* Effects of a Mediterranean-style diet on the need for antihyperglycemic drug therapy in patients with newly diagnosed type 2 diabetes: a randomized trial. *Ann. Intern. Med.* **151**, 306–314 (2009)

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