COMMENTS AND RESPONSES

Comment on: Wheeler et al. Macronutrients, Food Groups, and Eating Patterns in the Management of Diabetes: A Systematic Review of the Literature, 2010. Diabetes Care 2012;35:434–445

In their attempt to answer the question of how eating patterns affect glycemic control of diabetes, Wheeler et al. (1) concluded that "there appears to be no advantage in using the Mediterranean-style eating pattern compared with other eating patterns for glycemic control." We strongly disagree with this summary statement because it is based on wrong reporting of published data and multiple publications from the same study, and is also missing reporting of published studies. According to the search strategy detailed on the systematic review procedure (1), randomized controlled trials (RCTs), prospective, cross-sectional, or case-control studies published through October 2010 could be included, with multiple publications from the same study limited to one reporting.

Wrong statement about results of published articles: The authors stated that a 4-year study (reference 104), the longest actually performed in type 2 diabetic patients, was unable to find a difference in glycemic control between patients randomly assigned to a lower-carbohydrate Mediterranean-style diet versus those assigned to a lower-fat diet. In Table 2 of the article, it is clearly evident that at 4 years of follow-up there was a difference of 0.4% HbA_{1c} (95% CI −0.9% to −0.1%) favoring the Mediterranean diet.

Reporting of one triplicate study: The three RCTs (references 105–107) comparing Greek traditional or fast foods in 22 patients with type 2 diabetes reported the results of one single study split into three different papers. The observation lasted 4 weeks only, as did that of reference 52.

Missing published studies: The RCT by Elhayany et al. (2) was published in March 2010, thus respecting the inclusion criteria of the review. The effects of a low-carbohydrate Mediterranean, a traditional Mediterranean diet, and the 2003 American Diabetes Association diet were compared, on health parameters during a 12-month period, in 259 overweight type 2 diabetic patients. The reduction in HbA_{1c} was significantly greater in the low-carbohydrate Mediterranean diet than in the American Diabetes Association diet (−2.0 and −1.6%, respectively; $P < 0.022$). Again, there was a 0.4% difference in HbA_{1c} favoring the Mediterranean diet. In a 2-year trial, Shai et al. (3) compared three weight-loss diets in 322 moderately obese subjects, including 46 diabetic patients: among the participants with diabetes, there was a significant decrease in fasting glucose concentration (32.8 mg/dL) in the Mediterranean diet group and an increase (12.1 mg/dL) in the low-fat diet group. In the cross-sectional analysis of a population of 901 outpatients with type 2 diabetic patients attending diabetes clinics located in south Italy (4), adherence to a Mediterranean-type diet was inversely associated with mean HbA_{1c} concentrations, which were significantly lower in diabetic patients with high adherence than those with low adherence (difference: HbA_{1c} 0.9% [95% CI 0.5–1.2]; $P < 0.001$). The evidence so far accumulated from the long-term (from 12 to 48 months) RCTs suggests that adopting a Mediterranean diet may improve glycemic control and cardiovascular risk in individuals with established diabetes (5). Perhaps it was not by chance that UNESCO inscribed the Mediterranean diet on the Representative List of the Intangible Cultural Heritage of Humanity in 2010 (http://www.unesco.org/culture/ich/en/RL/00394).

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