COMMENTS AND RESPONSES

The Effects of Calcium and Vitamin D Supplementation on Blood Glucose and Markers of Inflammation in Nondiabetic Adults

Response to Tournis and Mitrakou

We would like to thank Tournis and Mitrakou (1) for their comments on our recent publication (2), and we appreciate the opportunity to respond. We agree that the favorable effects of vitamin D on glycemia may, at least in part, be due to the favorable effects of vitamin D on improved muscle function; however, we did not assess this relationship in our trial. Examining the treatment effect according to the median category of the predictor (or in tertiles, quintiles, etc.) is a statistically appropriate approach when clearly defined categories for the predictor are not available. In the case of fasting plasma glucose (FPG), using the widely accepted clinical criteria of normal fasting glucose (FPG <100 mg/dl) or impaired fasting glucose (FPG 100–125 mg/dl) to define categories for our analysis is a more appropriate approach because the categories are clinically meaningful. We agree that it would be interesting to see whether there is a threshold for the vitamin D effect on glycemia. However, given that our primary analysis was post hoc using data from a trial performed for bone-related outcomes, we limited the number of subgroup analyses to minimize type 1 error (3). Therefore, this analysis was not done. We plan to perform the suggested analysis in an ongoing trial that is specifically designed to examine the effect of vitamin D and calcium supplementation on diabetes related outcomes.

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