



Long-term outcomes of dietary carbohydrate restriction for HbA_{1c} reduction in type 2 diabetes mellitus are needed

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Received: 28 January 2022 / Accepted: 2 February 2022 / Published online: 31 March 2022
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Keywords Carbohydrate restriction · Obesity · Type 2 diabetes mellitus · Weight loss

Abbreviation

CRHP Carbohydrate-reduced high-protein

To the Editor: We read with great interest the recently published paper by Thomsen et al [1]. As the authors report, in participants with type 2 diabetes, a carbohydrate-reduced high-protein diet (CRHP) could improve glycaemic control beyond the effects of weight loss compared with a conventional diabetes diet (CD) [1]. However, several issues described in this article warrant further discussion.

First, an energy-reduced high-protein diet could not significantly improve HbA_{1c} or lipids compared with other energy-reduced diets in individuals with type 2 diabetes in RCTs with a duration of 1 [2] or 2 years [3]. Moreover, the effects of weight loss were similar between a high-protein diet and other energy-reduced diets [3, 4].

Second, weight loss is known to improve glucose control and reverse type 2 diabetes [5]. A 5.9% weight loss at 6 weeks was quite strong in this study [1]. It should be noted that the percentage of total weight loss at 6–12 weeks was usually higher than at 12 months in other long-term randomised controlled trials [3, 6, 7]. Weight regain was common and may affect glycaemic control results [8]. Additionally, the HbA_{1c} reductions could not achieve a new steady state in 6 weeks [1]. The results of this 6 week intervention has limitations; a 24 or 48 week follow-up period might be more meaningful.

Third, the hypoglycaemic events in participants on the CRHP diet were asymptomatic, probably because the study diets were well designed and provided by the investigators [1]. When individuals with type 2 diabetes prepare the CRHP diet on their own, the risk of hypoglycaemic events might be increased and the safety of a CRHP diet used in everyday life tempered.

In conclusion, the CRHP diet for 6 weeks may improve HbA_{1c} in individuals with type 2 diabetes; however, a long-term follow-up might be more meaningful.

Authors' relationships and activities The authors declare that there are no relationships or activities that might bias, or be perceived to bias, their work.

Contribution statement Both authors were responsible for drafting the article and revising it critically for important intellectual content. Both authors approved the version to be published.

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