Dietary carbohydrate intake and mortality: reflections and reactions

I read Sara Seidelmann and colleagues study[1] with interest, and there are several shortcomings that deserve attention. Although, the authors appropriately acknowledge the limitations of data collection by questionnaire, in their study, participants were expected to recall their food intake over 25 years, in detail, over two sessions.

Another important issue is that participants in the lowest carbohydrate quintile consumed a daily mean of 1558 kcal, 37% of which was from carbohydrates. This grouping contrasts with the established energy intakes from carbohydrate of the classic ketogenic (in which carbohydrates comprise about 5% of calorie intake) and the modified Atkins diets (about 10%). The food items listed under the plant-based diet also included items that are usually highly restricted in modern low-carbohydrate diets (such as peanut butter, bread, chocolate, and soft drinks).

The authors state that low-carbohydrate diets with "increased animal protein and fat consumption have been hypothesised to stimulate inflammatory pathways, biological ageing, and oxidative stress". On the contrary, emerging evidence[2–4] shows that low-carbohydrate diets do exactly the opposite; these diets are shown to decrease inflammation, reduce oxidative stress, mitigate tumour signalling pathways, delay ageing, and slow down cancer growth and proliferation. Preclinical studies[5] of low glucose availability in cancer suggest that the lifespans of patients with cancer could increase when these people are given low-carbohydrate diets. In at least one study[6] in humans, a low-carbohydrate diet was well tolerated in patients with cancer.

Current low-carbohydrate diets were not correctly represented in the study by Seidelmann and colleagues. Further investigation should be encouraged before making broad claims about possible deleterious effects.

I declare no competing interests.

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