

# It is important to control for confounders when examining the role of diet in cardiovascular disease prevention

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To the Editor,

We read the article "Effects of Brazilian Cardioprotective Diet Program on risk factors in patients with coronary heart disease: a Brazilian Cardioprotective Diet randomized pilot trial" by Bernardete Weber et al. with a great interest (1). The authors evaluated the ability of the Brazilian Cardioprotective Diet Program to reduce blood pressure, fasting glucose levels, and body mass indices (BMIs) among patients with established atherothrombotic disease. They concluded that patients participating in the Brazilian Cardioprotective Diet Program showed greater decreases in these factors than patients who received the dietary therapy proposed by the Brazilian guidelines for cardiovascular disease (CVD). We thank the authors for their study, which was well designed and thoroughly documented.

Cardiovascular disease is the most important cause of mortality and morbidity in developed countries worldwide. Secondary prevention is important to combat the further progression of atherosclerotic disease and to reduce mortality from coronary artery disease. Although there is an established association between regular physical activity and cardiac risk factors in the secondary prevention of coronary artery disease (2), the authors did not mention the relationships between physical activity and reductions in blood pressure, fasting glucose levels, and BMI. We think that the results of the study would be stronger if the authors addressed the issue of physical activity in their patient cohort.

Cardiovascular risk modifications can also be affected by atherosclerotic risk factors, such as alcohol consumption, hypothyroidism, impaired glucose tolerance (3), and the elevated inflammatory status associated with inflammatory diseases, cardiac syndrome X, and infection (4). These risk modifications can also be affected by eating disorders,

excess salt intake, major depression, and gastrointestinal disease (5). Several of these possible contributing factors were not mentioned in the present study. It would be better if the authors provided data concerning these factors.

Finally, cardiovascular risk factors may be influenced by weight loss medications, aspirin, a history of drug addiction (6), and some antihypertensive therapies, such as angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, and beta-blockers. It would be better if the authors performed a subgroup analysis, dividing the three patient groups on the basis of the administration of antihypertensive therapy. We believe that these data would provide a more complete basis for future research concerning the clinical effects of diet on cardiovascular risk factors.

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