

P156-T | Dietary folate intake and cardiometabolic risk in participants of the PREDIMED-PLUS randomized trial

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Background: Folate and folic acid (FA) are two forms of vitamin B9 that may have different metabolic pathways to reduce homocysteine in blood and the risk of cardiovascular disease (CVD). Although FA use has been associated with decreased risk of CVD, the evidence about the effects of folate on cardiovascular risk is scarce. In this study, we explore the association between dietary folate intake and cardiometabolic risk among subjects with overweight and metabolic syndrome of the PREDIMED-PLUS trial at baseline.

Methods: We analyzed data from 6598 participants with overweight/obesity and with at least three components of metabolic syndrome in the PREDIMED-PLUS trial at baseline. Dietary folate intake (per 100 mcg/day and in quintiles) was estimated using a validated food frequency questionnaire. We calculated a cardiometabolic risk score (CRS) using the standardized values as shown in the formula: [(body mass index + waist-to-height ratio)/2] + [(systolic blood pressure + diastolic blood pressure)/2] + plasma fasting glucose – HDL cholesterol + plasma triglycerides. The CRS as a continuous variable was the outcome variable. We explored the association between CRS and folate intake using multiple robust regressions models with Huber method.

Results: We observed inverse associations between dietary folate intake (per 100 mcg/day) and CRS ($\beta = -0.14$; CI 95%: -0.21 to -0.08), waist-to-height ratio ($\beta = -0.04$; CI 95%: -0.06 to -0.02), systolic blood pressure ($\beta = -0.03$; CI 95%: -0.06 to -0.01) and plasma fasting glucose ($\beta = -0.04$; CI 95%: -0.06 to -0.02). After adjusting for the adherence to a Mediterranean dietary score, the associations did not change substantially.

Conclusion: This study suggests that higher folate intake is associated with a lower cardiometabolic risk score probably through several components such as waist to height ratio, systolic blood pressure and plasma fasting glucose in high-risk subjects of the PREDIMED-PLUS trial.

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P157-T | Effect of a mediterranean diet on the primary prevention of atrial fibrillation and major cardiovascular events in hypertensive patients with high cardiovascular risk: results of ICFAMED randomized trial

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Background: Our objective is to evaluate the effect of a MedDiet, compared with a low fat diet (LFD), on the incidence of this group of diseases in hypertensive patients with high cardiovascular risk (CVR) in a situation of primary prevention (PP).