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Dietary total antioxidant capacity and severity of stenosis in patients with coronary artery disease

Zamzam Paknahad

Isfahan University of Medical Sciences, Iran

Abstract

Coronary artery disease (CAD) is a major cause of mortality worldwide. Many studies suggest that dietary antioxidant can offer significant protection against stroke, heart failure, and coronary heart disease. However, there is no study that assessed the association between dietary TAC and severity of stenosis in patients with CVD. The aim of this study was to investigate the association of dietary TAC and severity of stenosis in patients with coronary artery disease.

Methods: Dietary and medical History of 160 patients with CAD were assessed. The extent of Stenosis was determined using the Gensini score. Dietary history was investigated by food frequency questionnaire (FFQ), and Dietary TAC was calculated by multiplying the average frequency of intake of each food by oxygen radical absorbance capacity (ORAC) content.

Results: Across the Gensini score quartiles the dietary TAC, dietary hydrophilic TAC, dietary lipophilic TAC, and dietary phenolic TAC values were significantly increased in the highest quartile compared with the lowest quartile (dietary TAC (mmolTE/100 g):17.5±1.82 vs. 11.2± 1.90; dietary hydrophilic TAC (mmolTE/100 g): 16.56±1.29 vs. 10.74±1.81; dietary lipophilic TAC (mmolTE/100 g):0.55±0.12 vs. 0.23±0.09; dietary phenolic TAC (mmolTE/100 g):1.84 ±0.31 vs. 0.98± 0.21; (P<0•001 for all)) and dietary TAC (Beta=-0.53; P<0.001) was statistically significant independent predictors that associated with the Gensini score values.

Conclusions: There was a significant association between dietary TAC and severity of stenosis in patients with coronary artery disease.

Biography:

Zamzam Paknahad is Professor of Nutrition at Isfahan University of Medical Sciences, Faculty of Nutrition & Food Sciences, Isfahan, Iran. Her B.Sc is Biology. M.Sc, and Ph.D is Nutrition.

Ph.D thesis title:
Effects of olive oil, hydrogenated fat, cholesterol rich diet, and different combined with them on lipid profile, serum total antioxidant capacity and fatty streak development in rabbits.

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