Adherence to a Mediterranean diet and risk of gastric adenocarcinoma within the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort study[1,2,3]

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ABSTRACT

Background: The Mediterranean dietary pattern is believed to protect against cancer, although evidence from cohort studies that have examined particular cancer sites is limited.

Objective: We aimed to explore the association between adherence to a relative Mediterranean diet (rMED) and incident gastric adenocarcinoma (GC) within the European Prospective Investigation into Cancer and Nutrition study.

Design: The study included 485,044 subjects (144,577 men) aged 35–70 y from 10 European countries. At recruitment, dietary and lifestyle information was collected. An 18-unit rMED score, incorporating 9 key components of the Mediterranean diet, was used to estimate rMED adherence. The association between rMED and GC with respect to anatomic location (cardia and noncardia) and histologic types (diffuse and intestinal) was investigated. A calibration study in a subsample was used to control for dietary measurement error.

Results: After a mean follow-up of 8.9 y, 449 validated incident GC cases were identified and used in the analysis. After stratification by center and age and adjustment for recognized cancer risk factors, high compared with low rMED adherence was associated with a significant reduction in GC risk (hazard ratio: 0.67; 95% CI: 0.47, 0.94). A 1-unit increase in the rMED score was associated with a decreased risk of GC of 5% (95% CI: 0.91, 0.99). There was no evidence of heterogeneity between different anatomic locations or histologic types. The calibrated results showed similar trends (overall hazard ratio for GC: 0.93; 95% CI: 0.89, 0.99).

Conclusion: Greater adherence to an rMED is associated with a significant reduction in the risk of incident GC.