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Mediterranean Diet and Mortality in a US Population

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In a recent study of a US population, Mitrou et al[1] reported longer survival for subjects conforming more to the Mediterranean Diet (MeDi). A few months earlier, we had demonstrated that higher adherence to the MeDi was associated with reduced mortality in community-based Alzheimer disease (AD) patients who were identified in another US population in New York, New York.[2] Considering subjects from the same New York study, we had previously demonstrated that higher conformity to the MeDi was also associated with reduced risk for AD.[3,4] In a different New York population, we have also showed that higher MeDi adherence is related to a lower odds for essential tremor.[5]

Prompted by the study by Mitrou et al,[1] we investigated the association between MeDi adherence (calculated using the same method[2–5]) and all-cause mortality in our community-based multiethnic population study of subjects 65 years or older in New York. Baseline dietary evaluations and follow-up data were available for 2769 subjects, 764 of whom died during the mean (SD) course of 5 (3.3) (range, 0.1–16.4) years of follow-up. Compared with subjects in the lower tertile of MeDi adherence, mortality hazard ratios (HRs) were 0.83(95%confidence interval [CI], 0.71–0.97) for those in the middle tertile and 0.61 (95% CI, 0.50–0.75) for those in the highest tertile (*P* for trend, <.001). Median survival times were 9.2 years for the lower tertile, 10.2 years for the middle tertile, and 12.1 years for the highest tertile of MeDi adherence. In stratified analyses, the association was stronger for Hispanics but was present for all ethnicities: whites (n=723), middle tertile HR, 0.82 (95% CI, 0.59–1.13), and high tertile HR, 0.57 (95% CI, 0.37–0.89) (*P* for trend, .01); blacks (n=905), middle tertile HR, 0.89 (95% CI, 0.67–1.14), and high tertile HR, 0.71 (95% CI, 0.51–0.98) (*P* for trend, .04); and Hispanics (n=1104), middle tertile HR, 0.77 (95% CI, 0.59–1.00), and high tertile HR, 0.58 (95% CI, 0.42–0.79) (*P* for trend, <.001). After adjusting for cohort effect (recruitment in 1992 vs 1999), age, sex, ethnicity, education, total caloric intake, and body mass index, results were similar: middle MeDi adherence tertile HR, 0.87 (95% CI, 0.73–1.03), and high adherence tertile HR, 0.64 (95% CI, 0.51–0.79) (*P* for trend, <.001). Because we had already demonstrated a beneficial effect of the MeDi for survival in patients with AD,[2] in supplementary analyses we considered only 2200 never-demented subjects (529 death events). Both unadjusted (middle MeDi tertile HR, 0.90 [95% CI, 0.74–1.10], and high tertile HR, 0.69 [95% CI, 0.55–0.87] [*P* for trend, .002]) and fully adjusted (middle MeDi tertile HR, 0.98 [95% CI, 0.79–1.21], and high tertile HR, 0.73 [95% CI, 0.57–0.95] [*P* for trend, .02]) models produced similar results.

Overall, both the data presented herein and in previously published studies[1–5] confirm for US populations what was already known from previous work for other populations: the beneficial effects of the MeDi seem to be transferable and generalizable for subjects outside the Mediterranean region. This information is potentially very important for public health policy planning in the United States.

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References

1. Mitrou PN, Kipnis V, Thiebaut AC, et al. Mediterranean dietary pattern and prediction of all-cause mortality in a US population: results from the NIH-AARP Diet and Health Study. Arch Intern Med 2007;167(22):2461–2468. [PubMed: 18071168]
2. Scarmeas N, Luchsinger JA, Mayeux R, Stern Y. Mediterranean diet and Alzheimer disease mortality. Neurology 2007;69(11):1084–1093. [PubMed: 17846408]
3. Scarmeas N, Stern Y, Mayeux R, Luchsinger JA. Mediterranean diet, Alzheimer disease, and vascular mediation. Arch Neurol 2006;63(12):1709–1717. [PubMed: 17030648]
4. Scarmeas N, Stern Y, Tang MX, Mayeux R, Luchsinger JA. Mediterranean diet and risk for Alzheimer's disease. Ann Neurol 2006;59(6):912–921. [PubMed: 16622828]
5. Scarmeas N, Louis ED. Mediterranean diet and essential tremor: a case-control study. Neuroepidemiology 2007;29(3–4):170–177. [PubMed: 18043001]