PREVENTION

Low-dose omega-3 supplementation—no beneficial effect in patients with prior MI

Researchers from the Netherlands have reported that, among patients with a history of myocardial infarction, dietary supplementation with margarine containing low doses of omega (*n*)-3 fatty acids does not reduce the incidence of cardiovascular events. The results of the randomized, placebo-controlled Alpha Omega Trial seem to contradict the findings of earlier *n*-3 trials.

Daan Kromhout and colleagues randomly assigned 4,837 patients aged 60–80 years to receive one of four margarines with which to substitute their usual dairy spread; one containing ~400 mg of eicosapentaenoic acid and docosahexaenoic acid (EPA–DHA) only; one containing ~400 mg EPA–DHA and ~2 g of alpha-linolenic acid (ALA); one containing ~2 g of ALA only; and one containing no *n*-3 acids (placebo). All participants received the placebo margarine for the first 4–6 weeks of the intervention. The investigators were

particularly interested in the effects of ALA; “there is less evidence for a protective effect of ALA ... [which is] present in soybean oil, linseed oil, and walnuts,” explains Professor Kromhout. “If ALA also protects against coronary heart disease, it could be an alternative to EPA and DHA.”

By the end of the follow-up period (median 40.8 months), 13.9% of participants had experienced a cardiovascular event, but there was no difference in the number of events between the groups. “The most likely explanation for the absence of an effect ... is that these patients were very well treated with antithrombotic drugs, blood-pressure-lowering drugs, and lipid-modifying drugs,” says Professor Kromhout. However, a trend toward a reduction in cardiovascular events among women in the ALA group was observed and significantly fewer deaths from coronary heart disease occurred among patients with diabetes in the EPA–DHA group ($P=0.04$). Professor

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William Harris from the University of South Dakota, USA, who was not involved in the study, suggests that “the dose of the *n*-3 fatty acids was very low ... less than half of what the AHA recommends for patients with coronary heart disease (1,000 mg per day); [however] the significant benefit in diabetic patients is a new and potentially important finding.”

Alexandra King

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