PREVENTION

N-3 FATTY ACIDS PROVIDE LITTLE BENEFIT

Patients with a previous myocardial infarction or heart failure benefit from taking n-3 fatty acid supplements. The Risk and Prevention Study Collaborative Group, therefore, examined the role of n-3 fatty acids in patients with multiple cardiovascular risk factors but no history of cardiovascular events. In this group of individuals, n-3 fatty acid supplements did not affect the primary end point—time to death or admission to hospital for cardiovascular causes.

Trial participants were randomly assigned to receive either n-3 fatty acid supplements ($n=6,244$) or an olive oil placebo ($n=6,269$). The mean follow-up period was 5.0 years. The primary end point occurred in 11.7% of patients receiving n-3 fatty acids and in 11.9% of patients receiving placebo (HR 0.97, 95% CI 0.88–1.08, $P=0.58$).

Two significant differences, one in a secondary end point and one in a prespecified subgroup analysis, were observed. Fewer hospital admissions for heart failure occurred in the group treated with n-3 fatty acids than in the placebo-treated group (1.5% vs 2.3%, $P=0.002$). Secondly, women treated with n-3 fatty acids reached the primary end point less frequently than women treated with placebo (HR 0.82, 95% CI 0.67–0.99, $P=0.04$). This effect was not observed in men. Although these two differences could be attributable to chance, both are consistent with other studies. In other trials, the beneficial effect of n-3 fatty acids was caused by a reduction in the incidence of sudden death from cardiac causes. Investigators of the current trial speculate that the beneficial effects of n-3 fatty acids could be limited to patients particularly prone to ventricular arrhythmias.

The overall cardiovascular risk profile for both patient groups improved during the trial. Of note, plasma triglyceride levels fell more in participants assigned to n-3 fatty acids than those who received the placebo (-28.2 ± 1.3 mg/dl vs -20.1 ± 1.3 mg/dl, $P < 0.001$). “Patients were rather intensively exposed to recommended preventive treatment [including healthy lifestyle habits] by their family physicians, thus in patients like these there is no reason to prescribe n-3 fatty acids unless they already had a myocardial infarction,” says Dr Maria Carla Roncaglioni, the study co-ordinator.

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