Correspondence

Letter by Papageorgiou et al Regarding Article, “OMEGA, A Randomized, Placebo-Controlled Trial to Test the Effect of Highly Purified Omega-3 Fatty Acids on Top of Modern Guideline-Adjusted Therapy After Myocardial Infarction”

To the Editor:

In an interesting study published recently in Circulation, Rauch et al.1 examined the prognostic effect of highly purified omega-3 fatty acids in addition to current guideline-adjusted treatment of acute myocardial infarction (MI). They concluded that the application of omega-3 fatty acids does not reduce further the decreased rates of sudden cardiac death, total mortality, major adverse cerebrovascular and cardiovascular events, and revascularization in survivors within 1 year of follow-up. These findings are consistent with the recent study of Kromhout et al.,2 which showed that the addition of omega-3 fatty acids or α-linolenic acid to the regular therapy did not reduce significantly the rate of major cardiovascular events among patients who had had a MI. However, the results of the OMEGA trial1 have raised questions that need further investigation, especially in terms of the results reported by the GISSI trial3 in the aforementioned end points. The GISSI trial,3 in a larger cohort of patients with MI, showed that omega-3 lowered significantly the risk of the primary end point (death, nonfatal MI, and nonfatal stroke, and the combined end point of cardiovascular death, nonfatal MI, and nonfatal stroke, as well). Differences between patient populations in age, sex distribution, and the presence or absence of a history of coronary artery disease are major factors, with the potency to modify the results. It is worth mentioning that the GISSI trial3 enrolled patients of ~10 years younger than the patients in the OMEGA trial.1 Also, statin treatment (in addition to the routine treatment of coronary artery disease patients) in the GISSI trial3 was at a very small percentage in comparison with the OMEGA trial.

Another important issue that has not been addressed is the effect of different types of oil on the primary end points and the vasculature, because there are differences in fatty acid composition and other minor components. We have recently shown that acute consumption of different types of oil, such as olive oil (used as a placebo in the OMEGA trial) and fish oil, had a significant and similar effect on vascular inflammation, because they reduced intracellular adhesion molecule 1 and tumor necrosis factor alpha levels in healthy individuals.4 Thus, further studies are required in specific populations to investigate the comparable effects of different fatty acids on the vasculature and the primary end points.

Disclosures

None.

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References

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