Reference:

Effects of eicosapentaenoic acid on major coronary events in hypercholesterolaemic patients (JELIS): a randomised open-label, blinded endpoint analysis


KobeUniversity, Kobe, Japan. Biostatistics, Toyama University, Toyama, Japan.

Summary:

This study from Japan is referred to as the JELIS – The Japan EPA Lipid Intervention Study. This long-term trial was performed on 18,645 patients with elevated blood cholesterol levels who were receiving pharmaceutical statin treatment for blood cholesterol-lowering. The patient population included both those without and with a history of coronary artery disease (CAD). In this randomized open-label, blinded end-point analysis, patients were assigned to receive either no omega-3 supplementation (controls) or daily supplementation with an EPA concentrate providing 1800mg of EPA daily over the 4.6 years of follow-up.

There was a statistically-significant reduction in major coronary events in all patients combined over the 4.6 year period with EPA supplementation (given in addition to standard statin therapy). Patients with a history of CAD also showed a statistically-significant reduction in major coronary events on follow-up of 19% whereas the patients without a history of CAD did not show statistical significance (despite an average overall trend towards reduction in major coronary events of 18%). In patients with a history of CAD, EPA supplementation reduced the risk of unstable angina and non-fatal myocardial infarctions (heart attacks) by 18% and 30% respectively.

The authors conclude that the fish/ fish oil derived fatty acid as EPA offers a promising treatment for the prevention of major coronary events and particularly non fatal coronary events.
in hypercholesterolemic Japanese patients receiving statin treatment for blood cholesterol control.

Dr. Holub's Comments:

This important study from Japan indicated the potential for EPA supplementation to significantly reduce major coronary events in statin-treated hypercholesterolaemic patients. It is of importance to point out that the basal Japanese diet typically is a diet which is relatively high in fish with EPA/DHA (combined) intakes in the rage of 600-1000 mg/day which is much higher than the typical North American diet where the combined EPA/DHA intakes are in the range 130-150 mg/day. Future studies which directly compare concentrates of EPA versus DHA versus mixtures of EPA/DHA will be of interest to determine if any particular differences in benefit are afforded to this group of patients as compared to that demonstrated herein with EPA alone.