

November 2020 – Fish Oil FAILURE....

Those following my work know my criticisms of fish oil use for CV Disease and other indications. There is no physiologic basis for fish oil, but this hasn't stopped enough health professionals from recommending fish oil. The following study was high caliber, long-term with many patients. The study was sponsored by AstraZeneca.

Fish Oil proponents typically claim fish oil study failures are caused from insufficient dosage. When reviewing these studies it is important to understand that with a 1-gram fish oil capsule – with at least 60% active ingredients – amounts to a 600mg dose of the “active ingredients” EPA and DHA. The brain uses a mere 7.2mg of DHA/day. Therefore, even 1 gram a day of fish oil is an enormous amount.

In the most recent study, the dosage was 4 grams of concentrated fish oil (75% EPA+DHA). These are retro convertible, so, once either EPA or DHA is ingested, the body can switch between them “as needed.” The details:

Study Summary

AstraZeneca's sponsored the “STRENGTH” Study with its drug ESPANOVA (50-60% eicosapentaenoic acid (EPA) and 15-25% docosahexaenoic acid (DHA)) with **13,000** men and women at high risk for a CV event while currently taking statins. The primary outcome was time to a significant CV event. The placebo was corn oil. The study duration was up to 5 years. Seventy percent (70%) of the patients were diabetic. Patients were included from 22 countries. The study was terminated early due to failure. In a secondary analysis of “time to atrial fibrillation,” among events in each group, there was an 69% increase in atrial fibrillation in the ESPANOVA leg compared with the corn oil patients.

Key Insights / Deductions

- The study was double-blind, placebo with many patients world-wide and sufficient to see many cardiovascular problems in the population. In fact, 10% of these high-risk patients experienced a significant cardiovascular event during the trial.
- The corn oil used was undoubtedly processed (studies rarely use organic). The processed corn oil itself is known to cause cardiovascular disease. The corn oil “placebo” is not a true “zero effect.” If fish oil had any benefit whatsoever, it would have worked better than the corn oil leg, but it did not. However, the fish oil results proved equally as harmful. That is why there was no difference in either leg.
- 4 grams of each oil was used in their respective legs. This is an enormous amount of EPA/DHA, but a reasonable amount of LA-containing corn oil.
- Fish oil caused an increase of 69% in atrial fibrillation (AF) cases (quivering/irregular heartbeat). AF is becoming an increasing cause of death.
- “Principal Findings: The trial was terminated early due to interim analysis revealing low probability for benefit with omega-3 CA. The primary outcome of cardiovascular death, myocardial infarction, stroke, coronary revascularization, or hospitalization for unstable angina occurred in 12.0% of the omega-3 CA group compared with 12.2% of the placebo group (p = 0.84).

Secondary outcomes:

Atrial fibrillation: 2.2% in the omega-3 CA (143 patients) group vs. 1.3% (84 patients) in the placebo group (p < 0.001)

Gastrointestinal adverse events: 24.7% in the omega-3 CA group vs. 14.7% in the placebo group. TIMI major bleeding: 0.8% in the omega-3 CA group vs. 0.7% in the placebo group.”

- “**Conclusions and relevance:** Among statin-treatment patients at high cardiovascular risk, the addition of **omega-3** [fish oil] compared with corn oil, to usual background therapies resulted in **no significant difference in [total] composite outcome of major adverse cardiovascular events. These findings do not support use of this omega-3 fatty acid formulation to reduce major adverse cardiovascular events in high-risk patients.**” Therefore, fish oil did not improve cardiovascular health and led to an increase in the AF subgroup in those patients taking ESPANOVA.

Comment

Fish Oil proponents continue to make excuse after excuse for fish oil's failure. If they used lipid physiology in their research, they would avoid these entirely predictable failures.