

## ATRIAL FIBRILLATION NEW DATA ON FISH OIL SUPPLEMENTS

Findings from the OPERA randomized trial suggest that perioperative consumption of fish oil, although safe and well-tolerated, does not reduce the incidence of postoperative atrial fibrillation (POAF). Data from the study were presented at the AHA Scientific Sessions in November 2012 and published in *JAMA*.

Approximately one-third of patients who undergo cardiac surgery experience POAF, and this condition is associated with increased long-term mortality. Habitual intake of fish or fish oil is known to reduce the risk of coronary death and ventricular arrhythmias. Whether fish oil intake has an effect on postsurgical atrial arrhythmias is, however, unknown.

The OPERA research team recruited 1,516 patients scheduled for cardiac surgery and randomly assigned them to receive either n-3-polyunsaturated fatty acids (PUFA; found in fish oil) or a placebo. The preoperative treatment (10 g cumulative dose) lasted for 2–5 days, and the postoperative treatment (2 g per day) lasted for up to 10 days. Plasma phospholipid n-3-PUFA levels increased by an average of 40% by the morning of surgery, suggesting that the preoperative dose was sufficient.

The primary end point (POAF lasting for at least 30 s) was seen in 30.7% of patients receiving placebo and in 30.0% of patients receiving n-3-PUFA. Secondary end points, including time to first POAF, number of POAF episodes per patient, and hospital utilization, were not significantly different between the two groups.

A high intake of fish oil (>3 g per day) has been associated with an increased risk of haemorrhagic stroke. In the OPERA study, however, no increased risk of bleeding in patients receiving n-3-PUFA was observed. Indeed, patients in the n-3-PUFA group required fewer blood transfusions than those in the placebo group.

“Fish oil may be important in other clinical contexts,” says lead author Dr Dariush Mozaffarian. “In particular, long-term use may reduce the first onset of AF in a general population of older adults, in whom at least 1 in 5 will develop AF after age 65.” Previous trials have shown favourable changes in physiological pathways related to AF, including blood pressure, heart rate, and inflammation.

**Megan Cully**

**Original article** Mozaffarian, D. *et al.* Fish oil and postoperative atrial fibrillation: the omega-3 fatty acids for prevention of post-operative atrial fibrillation (OPERA) randomized trial. *JAMA* doi:10.1001/jama.2012.28733