

## ARRHYTHMIAS

## High-dose, prescription omega-3 fatty acids do not prevent recurrent AF

A randomized, placebo-controlled trial conducted by a research group from the USA has revealed that a high-dose prescription formula of omega-3 fatty acids does not prevent recurrent episodes of atrial fibrillation (AF). This study was the largest trial of fish oils in patients with AF performed to date. Although the results are disappointing, they are likely to draw a line under the question of whether omega-3 is a therapeutic option in AF.

Patients with paroxysmal or persistent AF, who were not currently receiving antiarrhythmic medication, were enrolled. Each 1 g capsule of the prescription formula (Lovaza<sup>®</sup>, GlaxoSmithKline, Wilmington, DE, USA) comprised 465 mg eicosapentaenoic acid and 375 mg docosahexaenoic acid. Patients were randomly assigned to receive 8 g per day of Lovaza<sup>®</sup> ( $n=332$ ) or placebo ( $n=331$ ) for the first week, and 4 g per day thereafter. These doses were considerably higher

than those used in previous trials. “Many previous studies had inconsistent results,” explains investigator Peter Kowey. “We felt that ... a definitive large study, using big doses of active drug, was needed.”

The results of the study were clear cut; the omega-3 preparation did not reduce the incidence of symptomatic AF or atrial flutter when compared with placebo. Additionally, no benefit was observed in any of the patient subgroups. The study drug “is unlikely to be effective in other AF groups,” concludes Dr Kowey. “We need similar rigorous studies for other fish oil indications, including heart failure, coronary artery disease, and ventricular arrhythmias.”

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**Original article** Kowey, P. R., Reiffel, J. A., Ellenbogen, K. A., Naccarelli, G. V. & Pratt, C. M. Efficacy and safety of prescription omega-3 fatty acids for the prevention of recurrent symptomatic atrial fibrillation: a randomized controlled trial. *JAMA* doi:10.1001/jama.2010.1735