Omega-3 Fatty Acid Cuts Rate of New Atrial Fib

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TORONTO — Patients with cardiovascular disease on an oral regimen of omega-3 fatty acid had a 73% reduced risk for developing atrial fibrillation in a retrospective, observational study of more than 11,000 patients.

The analysis did not include information on the dosages of omega-3 fatty acid taken or the duration of treatment, so "the optimal dose of omega-3 fatty acid to prevent atrial fibrillation is unknown," Brian J. Barnes, Pharm.D., and his associates reported in a poster at the 14th World Congress on Heart Disease. The finding warrants a prospective study of the impact of omega-3 fatty acid on the incidence of new-onset atrial fibrillation, they said.

The study included 11,360 patients with cardiovascular disease who were seen in the cardiology service during 2005-2007 at the University of Kansas Medical Center, Kansas City. The review excluded patients who had atrial fibrillation before starting treatment with omega-3 fatty acid.

The study group included 8,760 patients with no omega-3 fatty acid exposure (77%) and 2,600 with exposure (23%). The patients who received omega-3 fatty acid were older (average age 66 years) than those with no exposure (average age 63 years), and also sicker, with a higher prevalence of coronary disease (57% vs. 29%), and diabetes (23% vs. 19%) and higher rates of using other cardiovascular drugs such as statins, aspirin, and ACE inhibitors. But an enlarged left atrium (more than 4 cm) was more common among the patients not on omega-3 fatty acid (75%) than in the patients taking omega-3 fatty acid (61%).

During follow-up, the rate of new atrial fibrillation was 23% among patients not taking an omega-3 fatty acid, and 9% among those on an omega-3 fatty acid, said Dr. Barnes, a researcher in the department of pharmacy practice.

In a multivariate model that included all of the known differences between the two groups at baseline, omega-3 fatty acid use was linked with a statistically significant, 73% reduction in the rate of new atrial fibrillation, the researchers said at the congress, which was sponsored by the International Academy of Cardiology. Other variables linked with a reduced risk for atrial fibrillation were statin use (24% risk reduction) and a history of diabetes (15% risk reduction). Variables linked with an increased risk for atrial fibrillation included age of 60 years or older, which boosted the risk about 3.4-fold, compared with patients aged 30-45 years; valvular disease, which raised the risk by 75%; an enlarged left atrium, which raised the risk by 33%; and male gender, which raised the risk by 17%.

Omega-3 fatty acid might cut the risk for atrial fibrillation because of its anti-inflammatory and anti-arrhythmic effects. ■

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