

Omega-3s offer no Crohn's disease benefits: study

4/9/2008- **Despite studies supporting the anti-inflammatory potential of omega-3 fatty acids, the oils are not effective for managing Crohn's disease, suggests a new international study.**

"Our results are important because the use of alternative medicines in general, and omega-3 free fatty acid formulations in particular, is widespread among patients with inflammatory bowel disease," wrote the authors in the *Journal of the American Medical Association*.

"This may be due, in part, to dissemination of the positive results obtained in [by Italian researchers in 1996 in the New England Journal of Medicine]. Given the negative results observed in the EPIC trials and in [a trial by Lorenz-Meyer et al], we do not endorse this practice, since patients with Crohn disease who are at risk for relapse would be better served by taking medications of known efficacy," they added.

The new international study, led by Dr. Brian Feagan at The University of Western Ontario in London, Canada adds significant weight to the ongoing debate, as it included two large-scale trials involving 738 Crohn's patients at clinical centres in Europe, Israel, Canada, and the United States.

"Small, single centre clinical trials often overestimate the true effects," said Dr. Feagan. *"That's why it is important to conduct large-scale, randomized, multi-centre studies in order to confirm preliminary results."*

Crohn's disease, which currently affects approximately one in 400 people in the western world, is currently incurable so patients mainly seek to control the inflammation, relieve symptoms and prolong remission time.

And since omega-3 fatty acids have anti-inflammatory properties, the researchers sought to test their potential for Crohn's disease.

Details and key results

The researchers conducted two large-scale trials of high-dose omega-3 free fatty acids as maintenance therapy in Crohn disease patients in remission. The studies (Epanova Program in Crohn's Study 1 [EPIC-1] and EPIC-2) involved 363 and 375 patients, respectively. Patients were randomly assigned to receive either placebo or a daily omega-3 supplement for 58 weeks.

The omega-3 supplement (Epanova; Tillotts Pharma AG, Ziefen, Switzerland) provided a dose of four grams of omega-3 per day, consisting of 50 to 60 per cent eicosapentanoic acid (EPA) and 15 to 25 per cent docosahexanoic acid (DHA). The free fatty acids were encapsulated in a delayed-release soft gelatin capsule.

Feagan and co-workers report no significant differences in relapse rates between people in the omega-3 and placebo groups in either trial. In EPIC-1, 31.6 per cent of subjects in the omega-3 group experienced a relapse within 360 days, compared to 35.7 per cent of subjects in the placebo group. In EPIC-2, 47.8 per cent of subjects in the omega-3 group experienced a relapse within 360 days, compared to 48.8 per cent of subjects in the placebo group.

"In summary, in the EPIC-1 and EPIC-2 trials administration of a high dose of omega-3 free fatty acids did not reduce the rate of relapse in patients with quiescent Crohn disease," wrote the researchers.

Taking heart from null results

Significant research supports the role of omega-3 fatty acids for heart health. The link was first identified by Danish researchers in the early 1970s after studies involving the Greenland Inuit.

Despite null results for Crohn's disease relapse in the new study, Feagan and co-workers did report that omega-3 fatty acid supplements did have significantly lower concentrations of triglycerides, high levels of which are considered a risk factor for cardiovascular disease.

"In EPIC-1, the mean decrease after 30 weeks of treatment was -21.5 mg/dL (to convert to millimoles per liter, multiply by 0.0113), compared with a mean increase of 16.5 mg/dL in patients who received placebo," stated the researchers in JAMA. "Corresponding values for EPIC-2 were -27.1 mg/dL in patients treated with omega-3 free fatty acids, compared with -5.1 mg/dL in patients receiving placebo."