Omega-3 fatty acid supplementation associated with decreased cognitive decline in older men and women

An article published this year in *The Journal of Nutrition, Health & Aging* establishes a link between the use of omega-3 fatty acid supplements and a reduced risk of cognitive impairment.

In their introduction to the article, G. Gao and colleagues remark that inconsistent or inconclusive results obtained from previous studies and trials of omega-3 fatty acids may be due to differences in measurement of intake and unaccounted sources of omega-3. The current study sought to determine the association of omega-3 from supplements with the development of cognitive decline--a relationship that had not previously been well studied due to the relatively low rate of usage of the supplements among the general population.

Researchers at National University of Singapore analyzed data from 1,475 older Chinese participants in the Singapore Longitudinal Aging Studies who did not have dementia upon enrollment. Questionnaires administered at the beginning of the study were analyzed for the frequency of omega-3 fatty polyunsaturated fatty acid supplement use and for the intake of fish, from which these fatty acids are usually derived. Cognitive performance was evaluated at enrollment and at a median of 1.5 years later.

Six percent of the participants reported supplementing with omega-3 fatty acids daily. Compared to those who did not report daily supplementation, those who supplemented had a 63 percent lower adjusted risk of being diagnosed with cognitive decline over follow-up. Exclusion of those who had cognitive impairment, diabetes, stroke or heart disease at the beginning of the study revealed an even lower risk in omega-3 supplement users. No reduction in cognitive decline was found to be associated with the intake of fish.

The authors note that the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) may lower cardiovascular risks, improve cerebral blood flow, decrease inflammation, and limit Alzheimer's disease progression, all of which could help reduce the rate of cognitive decline. "To our knowledge, no previous observational study has investigated and reported a reduced risk of cognitive decline associated with the use of omega-3 polyunsaturated fatty acid supplements in nondemented Individuals," they announce. "The data in this observational study supports the suggestion that daily consumption of omega-3 polyunsaturated fatty acid supplements may be beneficial in preventing cognitive decline in individuals without dementia. However, data from more prospective and interventional studies should provide firmer evidence to support the use of omega-3 polyunsaturated fatty acids in slowing cognitive decline in elderly persons."