

WCBP 2009: Omega-3 Supplements Provide Mixed Results as Antidepressant

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July 8, 2009 (Paris, France) — While omega-3 supplements are only nominally better than placebo as a treatment for major depression, they provide significant benefit in depressed patients without comorbid anxiety. In addition, the supplements are well tolerated, according to results of the Omega-3D trial reported here at the 9th World Congress of Biological Psychiatry (WCBP).

"We believe our findings are important because depressed patients without comorbid anxiety disorder account for about half of all depressed patients," Francois Lesperance, MD, professor of psychiatry at the University of Montreal, in Quebec, told *Medscape Psychiatry*.

"And, in fact, the level of improvement we saw in this subgroup is on a par with what has typically been reported with pharmacologic treatments. Many depressed patients prefer to avoid drug treatment because of the stigma associated with such therapy, not to mention potential treatment-related side effects, and thus it's nice to be able to offer patients an alternative treatment that is similarly effective but without the risks," he added.

Less Fish Equals More Depression

Dr. Lesperance presented results in 432 patients with an episode of major depression who had been randomized to 8 weeks of treatment with 1050 mg per day of eicosapentenoic acid — an omega-3 fatty acid found in fish oil — or matched placebo masked with fish odor.

"There is a large body of epidemiological data to support a link between omega-3 and depression," Dr. Lesperance pointed out. "For example, 8 of 11 epidemiological studies evaluating the association between depression and fish consumption report a statistically significant inverse association. In other words, less fish means more depression."

Also, most epidemiological studies have found low levels of omega-3 and high levels of omega-6/omega-3 ratios in depressed individuals compared with controls.

Neurobiological studies and small, randomized clinical trials also bolster a possible link between omega-3 and depression, he added.

Eligible participants for the trial included individuals with moderate to severe unipolar major depression who were not responsive to antidepressants or unable to tolerate antidepressants or who refused antidepressant therapy despite a physician's recommendation.

Of the study population, 40% were taking at least 1 antidepressant at the time of enrollment, 12% were in psychotherapy, 72% had a recurrent depressive episode, and 53% had comorbid anxiety disorders.

The primary outcome measure was the 30-item self-report Inventory of Depressive Symptomatology (IDS-SR).

Current Treatment Has "Severe Limitations"

The overall mean difference on the IDS-SR between the omega-3 and the placebo groups over 8 weeks was 1.32 points and marginally significant ($P \leq .1$). The mean difference on the Montgomery-Asberg Depression Rating Scale (MADRS), a secondary study end point, was 0.97 points ($P \leq .1$).

The mean change in IDS-SR in patients without comorbid anxiety disorder was 3.05 points ($P \leq .01$). The mean change on the MADRS was 1.79 points ($P \leq .01$).

Bad breath or so-called fish burp occurred in 66 patients receiving omega-3 supplements (30.4%) and 11 placebo-treated patients (5.2%).

"Current depression treatments have severe limitations," Dr. Lesperance observed. "First, they are not sufficiently effective, with only about 30% experiencing a full remission after 8 weeks of treatment," he said.

"Also, 20% of patients stop treatment within the first 2 months because of problems with tolerability."

Another problem is that 25% of depressed patients use alternative-medicine treatments that have not been demonstrated to be effective, he added.

"For patients without comorbid anxiety disorder, the only downside I can think of with omega-3 supplements is that they are not reimbursed, and their cost is not insignificant," Dr. Lesperance said.

Largest Study of Its Kind

He added that the next step is to conduct a head-to-head comparison of omega-3 supplements and antidepressants.

Session chair Stuart Montgomery, MD, emeritus professor of psychiatry at the Imperial College London, in the United Kingdom, pointed out that the study is the largest to date to evaluate the efficacy of omega-3 supplements for the acute-phase treatment of major depression.

"Its size," he said, "allows for a subanalysis, which shows that efficacy is concentrated in a population without comorbid anxiety disorders who are normally excluded from pivotal placebo-controlled studies in major depressive disorder. The efficacy in the subgroup without comorbidity is clear and at the same level as observed with older selective serotonin-reuptake inhibitors."

Isodis Natura, a distributor of omega-3 fatty acids, provided some funding for the study, but the study was entirely designed and controlled by the investigators, and Dr. Lesperance has not personally received any honoraria from the company. Dr. Montgomery had no relevant disclosures.

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