The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided.

Fish oils for depression?

A 58-year-old man's condition was stable on a selective serotonin reuptake inhibitor (SSRI) after 3 major depressive episodes in the previous 10 years. He disliked the idea of taking a drug for a long time and at one point took himself off the SSRI and started taking St. John's wort. However, the reappearance of symptoms of depression soon persuaded him to resume the SSRI. As discussed in a previous column (*J Psychiatry Neurosci* 2003;28:471), he decided, on the advice of his physician, not to try over-the-counter preparations of S-adenosylmethionine or 5-hydroxytryptophan. However, he continued to look for a more "natural" treatment to prevent the recurrence of depression. Research on the Web convinced him that eating more fish or taking fish oils might be the answer, but he had several questions. Is there good evidence for the effectiveness of fish oils? Should he eat more fish or take fish oil supplements? If he took supplements should he take one with higher levels of eicosapentaenoic acid (EPA) or docosahexaenoic acid (DHA)? Is there a concern about mercury or polychlorinated biphenyls in fish and fish oils?

Recent meta-analyses have looked at the effect of fish oils (omega-3 fatty acids) on depression. Most studies, all of which are relatively small, looked at the effect in patients with unipolar or bipolar depression who were already taking antidepressants or mood stabilizers. Different studies looked at the effect of EPA, DHA or their combination, and the dosages varied from 1 to 9.6 g daily. Although the meta-analyses indicated a significant antidepressant effect, different studies gave markedly discrepant results. No factors, such as dosage or the use of EPA or DHA, could be identified to account for the discrepancies. There is also the possibility of a publication bias.

Given that no studies have looked at the ability of fish oils to prevent the recurrence of depression and that the evidence for the treatment of depression remains preliminary, it would be inappropriate to advise the patient to substitute fish oils for the SSRI. However, adding fish oil supplements to the SSRI could be beneficial. The American Heart Association recommends that healthy adults eat at least 2 servings of fish a week, particularly fish with higher levels of DHA and EPA, such as mackerel, lake trout, herring, sardines, albacore tuna and salmon (www.americanheart.org/presenter.jhtml?identifier = 3006624). There is evidence that increased intake of fish oils is beneficial for the heart, and the possibility that fish oils may also help prevent depression, while not supported by evidence, remains plausible. Given that no dose-response relation was seen in the meta-analyses of depression treatment, a daily intake of 1 g (DHA plus EPA), the lowest dose used in the clinical trials, is reasonable. Fish oil supplements may have some advantages over fish consumption. Epidemiologic evidence relates increased fish consumption to a decreased incidence of depression, but no clinical trials have been done with fish consumption. Further, tests of a limited number of over-the-counter fish oil supplements have revealed negligible contents of mercury and organochlorines, including polychlorinated biphenyls, whereas these compounds are a concern with fish intake.

In summary there is not sufficient evidence to suggest the use of fish oils for the treatment of depression and no evidence for the prevention of depression. Nonetheless, fish oils are good for the heart, have no demonstrated adverse effects when taken in reasonable dosages, and could potentially be beneficial for mood. Although patients should be discouraged from taking fish oils as a substitute for antidepressants or mood stabilizers, if they wish to take fish oils as an adjunct to those treatments, they should be aware of the tentative nature of the evidence for a beneficial effect on mood and inform themselves about possible contaminants.

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