

Clinical Inquiries

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

Is Fluoxetine an Effective Therapy for Weight Loss in Obese Patients?

Am Fam Physician. 2003 Dec 15;68(12):2437-2438.

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Searchable Question

In patients who are obese, are selective serotonin reuptake inhibitors (SSRIs) more effective than placebo or other therapies for weight loss?

Evidence-Based Answer

Fluoxetine (Prozac) use may result in an average, short-term weight loss of up to 3.3 kg (7 lb, 4 oz) in obese patients, but the longterm effects and maintenance of weight loss after discontinuation of the drug have not been well studied. No evidence concerning other SSRIs was found. [Strength of recommendation: B, based on low-quality systematic reviews of randomized controlled trials (RCTs)]

Evidence Summary

Safety concerns have curbed the use of many weight loss medications, notably appetite suppressants. SSRIs, initially approved for the treatment of depression, are being studied now for use in obesity treatment.

A systematic review¹ of 11 studies of fluoxetine in the treatment of obesity was weakened by a failure to evaluate the quality of the included articles and by its reliance on effect size as a reported outcome. The review did use a reasonably comprehensive search strategy and a sound meta-analytic process. In the 11 studies, fluoxetine was used for an average of 28 weeks and resulted in an average weight loss of 3.3 kg. [Evidence level 2a] No long-term follow-up data were available in this review.

Another review² reported the same information but noted, in 10 to 15 percent of cases, an occurrence of minor side effects (e.g., anxiety, diarrhea, dry mouth), and “uncommon but serious” adverse events (e.g., bleeding, granulocytopenia, seizures, hyponatremia, hepatotoxicity, serotonin syndrome, extrapyramidal effects). [Evidence level 2a]

A 1999 systematic review³ of RCTs and prospective cohort trials looked at existing treatment options for obesity. A single RCT of fluoxetine was included in the review of eight RCTs of drug therapy in combination with dietary management and appetite suppressants. Fluoxetine had no significant benefit over placebo in bringing about weight loss in the 12-month study. All of the RCTs reported that any weight lost with medication use generally was regained 12 months after discontinuation of therapy. [Evidence level 1a: systematic review]

The Agency for Health Care Research and Quality is preparing a health technology assessment on the topic of pharmacologic therapy for obesity.

Recommendations from Others

The Obesity Education Initiative guidelines⁴ from the National Heart, Lung, and Blood Institute do not address SSRIs in the pharmacologic management of obesity, presumably because SSRIs are not approved by the U.S. Food and Drug Administration for this use. [Evidence level 5: evidence-linked consensus guideline]

Clinical Commentary

One of the consistent “concomitant therapies” in all pharmacologic weight loss studies is a program of rigorous diet and exercise. Evaluating SSRIs as weight loss therapy is a good idea, given the extent of obesity in our society. However, as safer weight loss medications are brought to the market, we must resist the temptation to concentrate solely on the numbers on the scale and continue to promote a healthy lifestyle of diet and exercise as the primary method of achieving weight control and preventing obesity.

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