Fluoxetine reduces symptoms for selected patients with irritable bowel syndrome

Research question Is fluoxetine an effective treatment for irritable bowel syndrome dominated by constipation and abdominal pain?

Answer Possibly. In one small trial a short course of fluoxetine 20 mg daily relieved symptoms better than placebo.

Why did the authors do the study? Irritable bowel syndrome is extremely common and notoriously hard to treat. Antidepressants including selective serotonin reuptake inhibitors are sometimes prescribed, although there is little evidence from randomised trials that they work. These authors wanted to find out, and they chose to test fluoxetine in patients with irritable bowel syndrome dominated by constipation and abdominal pain. Serotonergic neurotransmitters are thought to play a role in the pathogenesis of irritable bowel syndrome.

What did they do? Forty four Iranian men and women with a mean age of 35 took part in a placebo controlled trial. The trial was randomised, double blinded, and funded by the Tehran University of Medical Sciences. All participants had irritable bowel syndrome characterised by pain and constipation and defined by standard symptom criteria (Rome II). Twenty two participants took fluoxetine 20 mg daily for 12 weeks. The other 22 took a matching placebo. The authors asked them about five predefined symptoms every fortnight for 16 weeks—abdominal pain, bloating, hard stools, infrequent bowel movements (<3 times a week), and changes in bowel habit. After four, 12, and 16 weeks the authors compared the frequency of symptoms in the treatment and control groups. They also calculated the mean number of symptoms for each patient from week 2 of the study.

What did they find? After four weeks of treatment, participants taking fluoxetine were significantly less likely to report each of the five symptoms than controls. The benefits lasted for the full 16 weeks of the trial (data presented graphically). Four weeks after the end of treatment, four of the five symptoms were still significantly less common in the fluoxetine group. The mean number of symptoms fell from 4.6 in week 2 to 0.7 in week 16 in the fluoxetine group and from 4.5 to 2.9 in the controls ($P < 0.001$). The commonest side effects from fluoxetine were headache and anorexia. Headache and nausea were the commonest side effects reported by participants taking placebo. The incidences of side effects in the two groups were statistically indistinguishable, but the trial was too small to evaluate side effects with any certainty.

What does it mean? This small, brief trial suggests that a short course of fluoxetine 20 mg can help people with symptoms of abdominal pain and constipation caused by irritable bowel syndrome. Patients taking fluoxetine had fewer symptoms than controls from about week 2, and the effects seemed to last at least four weeks longer than the treatment. Bigger trials with longer follow-up are required to find out how long treatment should continue, what happens when it stops, and whether fluoxetine is safe for such patients. Further work is also needed to investigate why selective serotonin reuptake inhibitors should relieve pain and constipation. The patients in this trial had no serious psychological problems, but the authors did not formally assess their mental state.

Vahedi et al. The effect of fluoxetine in patients with pain and constipation-predominant irritable bowel syndrome: a double-blind randomised-controlled study. *Alimentary Pharmacology and Therapeutics* 2005;22:381-5.

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Editor's choice

Complicated questions—difficult answers

Scientific thinking gives a special place to simple solutions and explanations, but getting to those solutions is often messy. This week's journal offers a rich crop of complicated questions—and even more complicated answers.

Take, for example, the question of how many patients bring MRSA with them when they are admitted to hospital? In their study of admissions to Oxfordshire hospitals over seven years David Wyllie and colleagues found that a quarter of cases of MRSA bacteraemia occur in patients who have just arrived from the community, that this proportion is increasing, and that MRSA on admission is strongly associated with previous hospital contact (p 992). They suggest that surveillance for MRSA infection needs to take account of these cases that arrive from the community but seem to be associated with previous health care, a suggestion endorsed by Georgia Duckworth and Andre Charlett in their editorial (p 976).

But David Spiegelhalter has a caution for surveillance systems—or rather for the governments that set targets based on them. He illustrates how changes in rates of infection within hospitals are hard to measure because of chance variability and regression to the mean (p 1013). What this means is that at hospital level a change in rates may not accurately reflect a change in underlying risk, and vice versa.

Government action comes more seriously under attack in two articles on orphan drugs. On p 1016 Christopher McCabe and colleagues demolish the arguments for treating the cost effectiveness of orphan drugs differently from that of other drugs. They conclude that to treat them differently amounts to valuing the health gain of two individuals differently because one has a rare and one a common disease. Orphan status is likely to become more common as diseases become separated into genetically distinct conditions—and with it the burden on healthcare costs.

That impact on costs is illustrated by Amanda Burls and colleagues (p 1019), who describe how health commissioners in the West Midlands decided not to fund enzyme replacement therapy for lysosomal storage disorders because it was poorly cost effective. The Department of Health then decided to move commissioning for these diseases to national level. The national advisory group has allowed the treatment—but without providing a budget. West Midlands thus now has to fund a treatment it had decided not to and “important services cannot be commissioned.” The authors argue that this “fudge” is neither efficient nor fair. It is, however, a result of the refusal by British governments to recognise the need to ration—and support fair ways of doing so. Clearly governments don't like facing up to what Edward Wilson describes in his letter on funding trastuzumab (p 1023) as these “terrible decisions.”

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