



What's best for IBS?

A meta-analysis confirms the usefulness of antispasmodics and antidepressants for irritable bowel syndrome, but finds bulking agents to be of little help.

PRACTICE CHANGER

Recommend antispasmodics or antidepressants for patients with irritable bowel syndrome (IBS) and explain that, while fiber may have other benefits, it is unlikely to relieve IBS symptoms.¹

STRENGTH OF RECOMMENDATION

A: Based on a meta-analysis.

Ruepert L, Quartero AO, deWit NJ, et al. Bulking agents, antispasmodics and antidepressants for the treatment of irritable bowel syndrome. *Cochrane Database Syst Rev.* 2011;(8):CD003460.

ILLUSTRATIVE CASE

A 25-year-old woman who has been your patient for several years has intermittent bouts of abdominal pain, constipation, gas, and bloating. You believe she can benefit from treatment for IBS. What should you recommend?

IBS is the most common functional disorder of the gastrointestinal (GI) tract, affecting approximately 15% of the US population² and accounting for annual health care costs of roughly \$30 billion.³ The primary symptoms are bloating, gas, and abdominal pain that often improves immediately after a bowel movement. Patients may have intermittent diarrhea and constipation, as well.

IBS may be related to "brain-gut dysfunction"

The etiology of IBS is unclear, but many agree that a combination of abnormal GI motility, visceral hypersensitivity, and "brain-gut dysfunction"—the inability of the brain to send signals that turn down pain produced in the GI tract—are contributing factors. Although

IBS is not life threatening, it has a significant personal, social, and psychological impact. Despite its high prevalence and impact, only a limited number of large studies have assessed the effectiveness of various treatments.

STUDY SUMMARY

Antispasmodics, antidepressants offer relief—fiber does not

The Cochrane review included 56 randomized controlled trials (RCTs) comparing the efficacy of bulking agents (fiber supplements), antispasmodics, or antidepressants with placebo for the treatment of IBS. Twelve RCTs (n=621) focused on bulking agents, 29 (n=2333) on antispasmodics, and 15 (n=922) on antidepressants. Inclusion criteria included age (>12 years) and an IBS diagnosis. The outcomes analyzed were improvement in abdominal pain, global health assessments, and IBS symptom scores. Adverse effects were not evaluated.

■ **Bulking agents.** In studies ranging from 4 to 16 weeks, bulking agents were found to have no significant effect on abdominal pain (4 studies; standardized mean difference [SMD], 0.03; 95% confidence interval [CI], -0.34 to 0.40; $P=.87$) or global functioning (11 studies; risk ratio [RR]=1.11; 95% CI, 0.91-1.35; $P=.32$). Nor was there an improvement in IBS symptom score (3 studies; SMD=0.00; 95% CI, -0.43 to 0.43; $P=1.00$).

■ **Antispasmodics.** Assessed in RCTs ranging from one week to 6 months, antispasmodics significantly improved abdominal pain (RR=1.3; 95% CI, 1.1-1.55; $P<.001$; number needed to treat [NNT]=7); global functioning (RR=1.5; 95% CI, 1.2-1.8;

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INSTANT POLL

Which of the following best describes your approach to IBS?

- Recommend antispasmodics as first-line therapy
- Initiate antidepressant therapy
- Recommend medication and fiber supplements
- Other _____

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Tell patients that while fiber may have some health benefits, antispasmodics and antidepressants have been found to improve IBS symptoms but thus far, fiber has not.

$P < .0001$; $NNT = 5$), and IBS symptom score ($RR = 1.9$; 95% CI, 1.3-2.8; $P < .01$; $NNT = 3$). Ten different antispasmodic agents were studied; in subgroup analyses, 5 of them—cimetropium/dicyclomine, peppermint oil, pinaverium, and trimebutine—were found to have statistically significant benefits.

Antidepressants. In studies of both tricyclics and selective serotonin reuptake inhibitors (SSRIs), antidepressants were found to have a significant effect on improving abdominal pain ($RR = 1.5$; 95% CI, 1.0-2.1; $P < .03$; $NNT = 5$), global functioning ($RR = 1.6$; 95% CI, 1.2-2; $P < .001$; $NNT = 4$), and IBS symptom score ($RR = 2.0$; 95% CI, 1.3-3.0; $P < .001$; $NNT = 4$). Subgroup analyses found statistically significant benefits in global functioning for SSRIs, and in abdominal pain and symptom scores for tricyclics.

WHAT'S NEW

More evidence against fiber for IBS symptoms

This Cochrane review confirms earlier findings—that both antispasmodics and antidepressants are effective treatments for IBS, but bulking agents are not. This is an important finding because dietary fiber adjustment is still among the first recommendations made by leading organizations like the American Gastroenterological Association and the World Gastroenterology Organisation.^{4,5}

CAVEATS

Limitations of studies included in the meta-analysis

Adverse effects of antispasmodics and antidepressants, which may limit compliance and treatment efficacy, were not addressed by the Cochrane reviewers. The total number of participants in trials of bulking agents was

much smaller than that of the other treatments, so it is possible that clinically meaningful improvements were missed due to inadequate statistical power. In addition, the duration of interventions was highly variable, ranging from one to 4 months for bulking agents and antidepressants and from one week to 6 months for antispasmodics.

It is also important to note that 8 of the 12 studies of bulking agents were conducted in GI clinics. (The settings in which the other 4 studies were conducted is unclear.) Given the possibility that patients referred to GI clinics have already tried and failed to respond to fiber (and thus, that those who do respond to fiber are not given referrals), it may be reasonable for family physicians to recommend a trial of bulking agents for patients with IBS and to monitor them for symptom improvement.

CHALLENGES TO IMPLEMENTATION

Patients may favor fiber

Patients with IBS may be reluctant to take antidepressants or antispasmodics, due to concern about adverse effects (eg, headache, insomnia, nervousness, dry mouth, and constipation) or because of a preference for what they see as a more “natural” remedy. It may be helpful to explain that while fiber may have some health benefits, such as lowering cholesterol,⁶ antispasmodics and antidepressants have been found to improve IBS symptoms but thus far, fiber has not.

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