

THERAPEUTICS

Review: Some therapies for treating the irritable bowel syndrome may be effective for symptom improvement

Lesbros-Pantoflickova D, Michetti P, Fried M, Beglinger C, Blum AL. **Meta-analysis: the treatment of irritable bowel syndrome.** *Aliment Pharmacol Ther.* 2004;20:1253-69.

QUESTION

In patients with the irritable bowel syndrome (IBS), which available therapies are effective?

METHODS

Data sources: MEDLINE (1966 to 2004). **Study selection and assessment:** Fully published studies in the English language were selected if they were placebo-controlled studies on the treatment of IBS. Studies were assessed for quality on a 5-point scale, including definition of IBS, double-blinding, sample size, study design (crossover or parallel), and intention-to-treat analysis. Meta-analyses were done, including all studies and including only high-quality studies (studies with quality score ≥ 3). **Outcomes:** Improvement of IBS symptoms.

MAIN RESULTS

51 studies on bulking agents, antidiarrheal agents, antispasmodics, gastroprokinetics, antidepressants, alosetron, and tegaserod were included in a meta-analysis. 12 studies showed that antidepressants globally improved IBS symptoms (Table) but were associated with severe side effects. 5 trials showed a benefit of alosetron for relieving IBS symptoms in patients with diarrhea only (Table). 4 trials showed a benefit of tegaserod

for relieving IBS symptoms in patients with constipation (Table), but the studies were mainly done in women. 5 of 13 studies of fiber showed a benefit in global IBS symptom improvement, but this effect was lost after excluding low-quality studies from the meta-analysis. Loperamide was an effective antidiarrheal agent in patients with IBS but did not improve IBS-related pain. Some smooth-muscle relaxants were ineffective in relieving IBS symptoms (e.g., pinaverium bromide and trimebutine), and the effects of some (e.g., cimetropium bromide, mebeverine, hyoscine, and peppermint oil) were lost after excluding low-quality studies from the meta-analysis. 2 of 4 studies showed a benefit of octylonium bromide for global IBS symptom improvement. Overall, the role of

smooth-muscle relaxants in the treatment of IBS was unclear. Prokinetics, such as domperidone and cisapride, was ineffective for IBS, and cisapride was associated with cardiac toxicity.

CONCLUSIONS

In patients with the irritable bowel syndrome (IBS), antidepressants, alosetron, and tegaserod may be effective for relieving IBS symptoms. More data from higher-quality studies are needed to establish the role of fiber and antispasmodics in the treatment of IBS.

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Effectiveness of various therapies vs placebo for symptom improvement in the irritable bowel syndrome*

Interventions	Number of trials (n)	Weighted event rates	RBI (95% CI)	NNT (CI)
Antidepressants	12 (947)	70% vs 45%	54% (19 to 98)	4 (3 to 9)
Alosetron	5 (2602)	51% vs 34%	46% (26 to 71)	7 (4 to 15)
Tegaserod	4 (3564)	42% vs 33%	34% (12 to 60)	11 (7 to 22)

*Abbreviations defined in Glossary; weighted event rates, RBI, NNT, and CI calculated from data in article using a random-effects model.

COMMENTARY

In addition to accounting for 28% of problems seen in gastroenterology practice (1), IBS is the second leading cause of absenteeism from work or school (2). Lesbros-Pantoflickova and colleagues did an appropriate and rigorous analysis to show that evidence for the effectiveness of current therapies is scant. It is hoped that this will encourage high-quality studies in this field in the future.

Lesbros-Pantoflickova and colleagues note that IBS is a particularly complex topic to study via meta-analysis, at least in part because of its poorly understood pathophysiology and myriad treatment options. A further complexity involves the evolving diagnostic criteria for IBS. When judged by the original Manning criteria, IBS prevalence estimates can be > 11 times higher than the more stringent Rome criteria (3). The authors include a measure in their 5-point quality scale for "adequate definition of IBS symptoms," but using only 1 specific set of criteria would likely have left them with too few studies to analyze.

The authors aptly focus on pharmacologic therapies for IBS because these types of trials are more likely to meet their criteria for inclusion. The patient-provider relationship, however, has also been shown to be

an important predictor of treatment success (4). As analytic methods involving study of the patient-provider relationship evolve, this body of evidence may grow as well.

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