Review: antidepressive agents improve symptoms and reduce pain in patients with functional gastrointestinal disorders


QUESTION: Are antidepressive agents efficacious for treating patients with functional gastrointestinal (GI) disorders?

Data sources
Studies were identified by searching Medline (1966–98), PsycLIT (1974–98), EMBASE/Excerpta Medica (1974–98), the Cochrane Library, and the Federal Research in Progress database using the terms antidepressive agents, serotonin reuptake inhibitors, monoamine oxidase inhibitors, amoxapine, clomipramine, tramipramine, desipramine, doxepin, imipramine, amitriptyline, maprotiline, nortriptolone, protriptyline, trazodone, nefazodone, fluoxetine, fluvoxamine, paroxetine, sertraline, fenoxetine, venlafaxine, bupropion, citalopram, mianserin, pizotyline, pizotifen, functional colonic diseases, dyspepsia, and abdominal pain. Bibliographies of relevant reviews and studies were scanned.

Study selection
Randomised controlled trials were selected if they compared an antidepressive agent with placebo in an adult population and outcome data were provided.

Data extraction
Data were extracted on study quality, setting, country, dose, study duration, follow up, patient numbers and characteristics, comorbid psychiatric disease, adverse effects, outcomes (pain or symptom improvement), and quality indicators.

Main results
90 citations were reviewed, and 11 met the inclusion criteria. Quality scores were moderate with a mean score of 4 on a 9 point scale. 9 studies evaluated tricyclic antidepressants: amitriptyline and tramilpramine in 3 studies, desipramine in 2 studies, and doxepin and clomipramine in 1 study each. 8 studies evaluated the irritable bowel syndrome (IBS), 2 evaluated non-ulcer dyspepsia, and 1 evaluated both disorders.

Treatment with antidepressants improved GI symptoms (table) and reduced pain scores (weighted mean difference 0.9, 95% CI 0.06 to 1.2) more than did placebo treatment.

Conclusion
Antidepressant agents improve symptoms and reduce pain in patients with functional gastrointestinal disorders (the irritable bowel syndrome and non-ulcer dyspepsia).

Symptom improvement with antidepressants v placebo for gastrointestinal disorders with 4 to 12 weeks of treatment*

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<thead>
<tr>
<th>Number of studies</th>
<th>Weighted event rates</th>
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<td>Antidepressants</td>
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<td>11</td>
<td>69%</td>
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*Abbreviations defined in glossary; weighted event rates and RBI supplied by authors.