Review: medical therapies are less effective than surgery for anal fissure


Clinical impact ratings GP/FP/Primary care ★★★★★★ Surgery ★★★★★

In patients with anal fissure, what is the efficacy and associated morbidity of various medical therapies compared with surgery, other medical therapies, or placebo?

METHODS

Data sources: PubMed (1966 to May 2003), Cochrane Library (May 2003, issue 2), Cochrane Colorectal Cancer Group specialised trials register (May 2003), proceedings of relevant meetings (past 3 y), reference lists of all included reports, and selected authors of published reports.

Study selection and assessment: randomised trials in any language that compared non-surgical therapy with surgery, an alternate medical therapy, or placebo in adults or children with chronic or acute anal fissure. Exclusion criteria: studies of atypical fissures associated with inflammatory bowel disease, cancer, or anal infection. Data were extracted on method of randomisation, blinding, intention to treat, and dropouts.

Outcomes: non-healing (persistence) of fissure (synonymous with persistence of anal pain) and post-treatment minor incontinence (synonymous with incontinence to flatus or anal seepage). In the main results and table of this abstract, however, the results are presented in terms of healing.

MAIN RESULTS

32 randomised controlled trials (n = 2446) met the selection criteria. Glycerol trinitrate (GTN) had higher healing rates than placebo (11 trials) (table). However, sensitivity analysis excluding 2 trials with low placebo rates found no difference between groups (table). GTN had lower healing rates than sphincterectomy (4 trials) but did not differ for minor incontinence. GTN did not differ from botulinum toxin injection (botox) (2 trials) or calcium channel blockers (CCBs) (1 trial). The addition of an anal dilator to normal care did not improve healing (2 trials). Botox did not differ from placebo (2 trials). Botox had lower rates of healing than sphincterectomy (1 trial) and lower rates of minor incontinence (1 trial). Nifedipine had higher healing rates than hydrocortisone (1 trial). CCBs had higher healing rates than lignocaine (1 trial). Lignocaine did not differ from placebo (2 trials), but had lower healing rates than hydrocortisone (1 trial) or bran (1 trial). Bran did not differ from hydrocortisone (1 trial). Overall, medical therapies (GTN or botox) had lower healing rates than surgery (5 trials, table).

CONCLUSIONS

In patients with chronic anal fissure, medical therapies are less effective than surgery. Some medical therapies may be marginally better than placebo.

Medical therapies for chronic anal fissure (outcome = healing of fissure)*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Weighted event rates</th>
<th>RBI (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTN v placebo</td>
<td>55% v 33%</td>
<td>78% (7 to 198)</td>
<td>5 (3 to 5)</td>
</tr>
<tr>
<td>GTN v placebo (excluding 2 trials with low placebo rates)</td>
<td>54% v 40%</td>
<td>35% (15 to 115)</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

RBR (CI) NNNH (CI)

Medical therapy (GTN or botox) v surgery | 50% v 86% | 42% (21 to 58) | 3 (3 to 5)

*GTN = glycerol trinitrate; RBR = relative benefit reduction. Other abbreviations defined in glossary. Weighted event rates, RBI, RBR, NNT, NNNH, and CI calculated from data in article using a random effects model.