Helicobacter pylori eradication reduced the risk for ulcers in dyspeptic patients who were about to begin NSAID treatment


QUESTION
In patients who have Helicobacter pylori infection and dyspepsia or a history of ulcer and who are about to begin nonsteroidal anti-inflammatory drug (NSAID) treatment, does the eradication of H. pylori infection reduce the risk for ulcers?

DESIGN
Randomized [allocation concealed]*†, blinded (investigators, research nurse, and patients),* placebo-controlled trial with 6-month follow-up.

SETTING
A family clinic and outpatient clinic in Hong Kong.

PATIENTS
102 patients who required long-term regular NSAID treatment, had a positive result for H. pylori on a urea breath test, and had moderate dyspepsia or a history of endoscopically confirmed peptic ulcers. Exclusion criteria were exposure to NSAIDs (except for aspirin, ≤325 mg/d) for >1 month within the previous 8 weeks; concomitant treatment with steroids, anticoagulants, or antiulcer drugs; substantial renal impairment; previous treatment for H. pylori; or history of gastric surgery or serious ulcer complications. Follow-up was 98% (mean age 63 y; 67% women).

INTERVENTION
 Patients were allocated to triple therapy (omeprazole, 20 mg; amoxicillin, 1 g; and clarithromycin, 500 mg) (n = 51) or control therapy (omeprazole, 20 mg, and placebo antibiotics) (n = 51) given twice daily for 1 week.

MAIN OUTCOME MEASURES
Endoscopically confirmed gastric or duodenal ulcers. A secondary outcome measure was complicated (symptomatic or bleeding) ulcers.

Eradication of Helicobacter pylori infection vs no eradication for patients who have dyspepsia or history of ulcer and receive NSAIDs‡

<table>
<thead>
<tr>
<th>Outcomes at 6 mo</th>
<th>Eradication</th>
<th>No eradication</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastric or duodenal ulcer</td>
<td>9.8%</td>
<td>31%</td>
<td>68% (23 to 87)</td>
<td>5 (3 to 19)</td>
</tr>
<tr>
<td>Complicated ulcer</td>
<td>3.9%</td>
<td>24%</td>
<td>84% (41 to 96)</td>
<td>5 (3 to 14)</td>
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</tbody>
</table>

‡NSAIDs = nonsteroidal anti-inflammatory drugs. Other abbreviations defined in Glossary; RRR, NNT, and CI calculated from data in article.

The situation is different for patients taking aspirin because Chan and colleagues previously showed that cure of H. pylori prevented recurrent aspirin-related ulcers but not other NSAID ulcers (2). The risk for developing ulcers in NSAID users is higher in the first few months of therapy. Gastric adaptation is said to be responsible for this phenomenon, but H. pylori infection now seems a likely culprit for pushing NSAID users over the ulcer threshold.

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REFERENCES