Reviewer's report

Title: Efficacy of Helicobacter pylori eradication therapies: a single centre observational study

Authors:

Ian L. P. Beales (i.beales@uea.ac.uk)

Version: 2 Date: 1 Aug 2001

Reviewer: Dr Paul Moayyedi

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Accept after revision, which I do not need to see

This is an interesting paper outline the effectiveness of various H. pylori eradication therapies in the clinical setting. There is useful data on the outcome of second and third line treatment.

My main comments relate to the discussion and interpretation of the results. The discussion was quite lengthy and repetitive particularly in relation to the problems of first line PPI-C-N therapy. It may benefit from a small amount of judicious editing.

The data do suggest that PPI-C-N triple therapy may give the poorest overall H. pylori eradication results. This is not a randomised study, however, and needs to be interpreted with caution. It is possible that the poor performance of the PPI-C-N triple therapy could be due to bias or confounding factors. It is possible, for example, that PPI-C-N triple therapies were prescribed by clinicians who did not encourage patients to comply with therapy as much as doctors prescribing PPI-A-C. This scenario could arise if PPI-A-C was the regimen of choice for gastroenterologists but not for clinicians with interests outside the GI tract. It is also possible that patients with penicillin allergy were prescribed PPI-C-N. The choices for these patients are limited anyway and this may explain the overall poorer results.

The author also states there is no logical second line therapy in patients who fail on PPI-C-N triple therapy. This is not the case although the author will be unaware of the data as we are yet to publish our results. We have conducted a randomised controlled trial comparing omeprazole and amoxycillin dual therapy and omeprazole, amoxycillin and metronidazole triple therapy in PPI-C-N treatment failures. We achieved a second line eradication of 65-87% giving an overall eradication rate of >95% which is similar to that reported in this paper. The situation is therefore less clear than is presented in the discussion.

The reason for emphasising this point is that a meta-analysis suggests PPI-C-N therapies need less clarithromycin and less PPI than PPI-A-C strategies (Huang J et al. APT 1999; 13: 719-29 and Moayyedi P et al. J App Microbiol 2001; 90: 126S-133S) to achieve maximal efficacy. PPI-C-N regimens are therefore cheaper than PPI-A-C and may be more cost-effective (Moayyedi et al. J App Microbiol 2001; 90: 126S-133S). This is particularly true when eradication therapy is given for non-ulcer dyspepsia or as part of a "test and treat" strategy. In patients with peptic ulcer disease and MALT lymphoma the balance of evidence would suggest PPI-A-C should be the first line treatment of choice.
Incidentally there appears to be a redundant bracket under the treatment regimen section on page 7.

Overall this was an excellent report of H. pylori eradication therapy in clinical practice and I enjoyed reading this thorough piece of work.

**Competing interests:**

None declared.