

Evidence for the treatment of chronic peptic ulcer

For many years surgery was considered an important approach for the treatment of chronic peptic ulcer. Thousands of patients were submitted to surgery in the absence of appropriate controlled trials. If such trials had been undertaken, the history of the disease could have been different. Once the link between *Helicobacter pylori* infection and chronic peptic ulcer had been established, new treatment guidelines based on scientific evidence were required.

If the interested clinician were to consult the Cochrane Library, he would find no systematic review prepared by the Cochrane Collaboration Group, but two reviews prepared by outside the collaboration. One of these, focuses on the effectiveness and the economic aspects of treatment³, and other on the efficacy of antibiotic therapy in eradicating *Helicobacter pylori*.² Both have been assessed by the Cochrane Collaboration. Basically the studies are supposed to compare placebo with omeprazole plus amoxicillin, or these two (dual therapy) with triple therapy (colloidal bismuth subcitrate, metronidazole and tetracycline) or quadruple therapy (omeprazole, colloidal bismuth subcitrate, tetracycline hydrochloride and metronidazole).

As can be seen, we have many agents to be compared two by two, three by three, four by four, or even to use them all. Obviously, when the number of agents increases, the chances of adverse effects and cost increases. Hence there are many questions that need to be answered by appropriate research. If we look at the Cochrane Library database, we find 157 references on this subject. While it is good news that there is so much information, the question

remain of what to do in practice? Two recent trials have been published that may help to address this question.

Boer e col.¹, in "Quadruple therapy eradicated *H. pylori*-associated peptic ulcer disease better than dual therapy", compared quadruple therapy (n = 40) with dual therapy (n = 36). Quadruple therapy included omeprazole - 20 mg twice daily on days 1 to 10; colloidal bismuth subcitrate, 120 mg, 4 times/d, on days 4 to 10; tetracycline hydrochloride, 500 mg, 4 times/d, on day 4 to 10; and metronidazole 500 mg, 3 times/d, on days 4 to 10. Dual therapy included omeprazole, 20 mg twice daily, on days 1 to 14 and amoxicillin, 1000 mg twice daily, on days 1 to 14. The studied patients were who had chronic peptic ulcer disease and endoscopically proved *Helicobacter Pylori* infections. The effects were biopsy confirmed.

Quadruple therapy led to a higher cure rate than did dual therapy 93% vs 56%, p < 0,001. The rate of adverse effects was higher in the group that received quadruple therapy than dual therapy group.

Thijs e col.⁵ compared triple therapy, colloidal bismuth subcitrate, 120 mg, 4 times/d, metronidazole 250 mg, 4 times/d, and tetracycline 250 mg, 4 times/d, with dual therapy, omeprazole 40 mg twice daily and amoxicillin 1000 mg twice daily. Both regimens were taken for 14 days. Triple therapy led to a higher rate of cure than dual therapy (95% vs 70%, P < 0,001). Again side effects were more frequently associated with triple than with dual therapy.

Although more larger trials are needed, the reader can already make a therapeutic decision, keeping in mind that the fewer drugs used increases compliance and reduces side effects.

Besides the information in the Cochrane Library the reader can also refer to the commentary on the paper by Schoenfeld and Butler⁴, and will have more evidence to guide his practice.

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