

A community-based study of Helicobacter pylori therapy using the strategy of test, treat, retest, and re-treat initial treatment failures

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摘要

Abstract

Background: Although eradication of Helicobacter pylori infection can decrease the risk of gastric cancer, the optimal regimen for treating the general population remains unclear. We report the eradication rate (intention-to-treat and per protocol) of a community-based H. pylori therapy using the strategy of test, treat, retest, and re-treat initial treatment failures. Materials and methods: In 2004, a total of 2658 residents were recruited for C-13-urea breath testing. Participants with positive results for infection received a standard 7-day triple therapy (esomeprazole 40 mg once daily, amoxicillin 1 g twice daily, and clarithromycin 500 mg twice daily), and a 10-day re-treatment (esomeprazole 40 mg once daily, amoxicillin 1 g twice daily, and levofloxacin 500 mg once daily) if the follow-up tests remained positive. Both H. pylori status and side-effects were assessed 6 weeks after treatment. Results : Among 886 valid reporters, eradication rates with initial therapy were 86.9% (95% confidence interval [CI]: 84.7-89.1%) and 88.7% (95%CI: 86.5-90.9%) by intention-to-treat and per protocol analysis , respectively. Re-treatment eradicated infection in 91.4% (95%CI: 86-96.8 %) of 105 nonresponders. Adequate compliance was achieved in 798 (90.1%) of 886 subjects receiving the initial treatment and in all 105 re-treated subjects. Mild side-effects occurred in 24% of subjects. Overall intention-to-treat and per protocol eradication rates were 97.7% (95%CI: 96.7-98.7%) and 98.8% (95%CI: 98.5-99.3%), respectively, which were only affected by poor compliance (odds ratio, 3.3; 95%CI, 1.99-5.48; $p < .0001$). Conclusions: A comprehensive plan using drugs in which the resistance rate is low in a population combined with the strategy of test, treat, retest, and re-treat of needed can result in virtual eradication of H. pylori from a population. This provides a model for planning country- or region-wide eradication programs.

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