

## Multidrug-Resistant *Helicobacter Pylori*: A Case Report

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### Abstract

**Background:** *Helicobacter pylori* (*H.pylori*) infection is a major global health concern, contributing to chronic gastritis, peptic ulcer disease, and gastric malignancies. The increasing prevalence of antimicrobial resistance (AMR) in *H. pylori* has led to rising treatment failures, particularly in low- and middle-income countries (LMICs), where resistance rates exceed 50% for clarithromycin and 60% for metronidazole. **Case presentation:** We report the case of a 38-years-old male with a history of peptic ulcer disease and recurrent gastrointestinal symptoms despite multiple antibiotic regimens. The patient had previously received clarithromycin-based triple therapy but experienced symptoms recurrence. Diagnostic testing confirmed persistent *H. pylori* infection with resistance to clarithromycin, metronidazole, amoxicillin, tetracycline, and levofloxacin. Standard treatment regimens, including bismuth-based quadruple therapy and rifabutin-based triple therapy, failed to achieve eradication. Adjunctive probiotic therapy and prolonged proton pump inhibitor (PPI) use provided partial symptom relief but did not eliminate the infection. **Conclusion:** The rising AMR in *H.pylori* necessitates urgent action, including the promotion of responsible antibiotic use, multidepartment collaboration and surveillances efforts in addition to the integration of pharmacovigilance systems to track resistance patterns will be crucial in mitigating the burden of *H. pylori* resistance and treatment outcomes.

### Keywords

*Helicobacter pylori*, Antimicrobial Resistance Antimicrobial Stewardship