

SYNBIOTIC THERAPY INCREASES ERADICATION RATE IN HELICOBACTER PYLORI ERADICATION

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[Symbiotici per *H. pylori*]

ABSTRACT

Background: Probiotics are used in combinations of *H. pylori* eradication regimens with variable results. Many strains tested had shown positive effects on side effect profiles. However, a clear effect on eradication rate is studied thoroughly. We aimed to investigate the beneficial effect of a synbiotic combination in clarithromycin-based triple eradication therapy.

Methods: Ninety-two patients who were infected with *H. pylori* (confirmed via endoscopic biopsy) were randomized into two groups: those undergoing standard triple treatment (control group (rabeproazol plus amoksisilin plus clarithromycin bid) n=49) and those receiving synbiotic (triple plus synbiotic bid group n=43). The synbiotic product contained lactobacillus, bifidobacterium and enterococcus. The 13C-breath test was performed at least 6 weeks after completing both therapy regimens.

Results: In the synbiotic group, 3 of the patients complained of metallic taste (7.0%), 1 complained of diarrhea (2.3%), 3 had nausea (7.0%), 2 had gas (4.7%), 3 experienced vomiting (7.0%) and 1 had constipation (2.3%). In the control group, 3 of the patients experienced a metallic taste (6.3%), 7 had diarrhea (14.6%), 5 had nausea (10.4%), 3 had intestinal bloating (6.3%), 3 experienced vomiting (6.3%) and 1 had constipation (2.1%). There was no significant difference between the two groups. However, side effect intensity and eradication rates were significant different between the groups ($p < 0.05$). The eradication rate in the synbiotic group was 88.4%, while it was 68.8% in the control group ($p < 0.05$).

Conclusion: The addition of synbiotic to triple therapy decreases the rate of antibiotic-related side effects. It also increases *H. pylori* eradication rates in clarithromycin-based triple therapy.

Key words: *Helicobacter pylori*, eradication, probiotics, synbiotics, lactobacillus, bifidobacteria.

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Introduction

Helicobacter pylori (*H. pylori*) is a gram negative bacterium that has a well-known role in the pathogenesis of gastric and duodenal ulcers, gastric cancer, and gastric lymphomas⁽¹⁾. The International Agency for Research on Cancer declared *H. pylori* a class I carcinogen in 1994⁽²⁾.

Although several different treatment regimens have been evaluated for its successful eradication, the use of proton pump inhibitors with amoxicillin and clarithromycin remains the recommended treatment for *H. pylori* infection⁽³⁾.

However, increased antibiotic resistance, especially to clarithromycin has significantly lowered the effectiveness of this treatment⁽⁴⁾. To solve this problem, alternative regimens including new antimicrobials such as levofloxacin⁽⁵⁾ and moxifloxacin⁽⁶⁾ have been used. In addition, antibiotic-associated side effects such as metallic taste, bloating, nausea, vomiting, and diarrhea are major factors of patient noncompliance and treatment failures⁽⁷⁾.

Probiotics are living microbial species that can have favorable effects on the bowel micro-ecology and can improve health conditions if given in adequate doses⁽⁸⁾.