



Role of Probiotics in the Management of Helicobacter Pylori Infection

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Abstract:

Helicobacter pylori is a gram-negative, spiral-shaped, microaerophilic organism that colonizes the stomach of humans and causes chronic-active gastritis, peptic ulcer disease, and gastric cancers, including adenocarcinoma of the stomach and MALT (mucosal-associated lymphoid tumor) lymphomas. *H. pylori* colonizes the stomach of over 50 % the world's human population, primarily those who reside in developing nations. Infection is generally first acquired in children, who may be entirely asymptomatic, and then persists for life, unless specific eradication therapy is initiated. All infected individuals have mucosal inflammation in the stomach in response to the organism, but only a subset will develop disease complications, such as an ulcer in the stomach or proximal duodenum and cancer in either the body or the antrum of the stomach. It is estimated that the lifetime risk of developing peptic ulceration is roughly 15%. However, this is an exceedingly important disease, because it has serious morbidity and mortality. Eradication of *H. pylori* infection is not successful when using antibiotics as monotherapy or dual therapy using combinations of an acid-suppressing agent and an antibiotic or two antibiotics without acid blockage.

Multiple studies show that some probiotic strains can inhibit the growth of *H. pylori*. To date, probiotics do not appear to have a role as sole therapy for use in the prevention or treatment of *H. pylori* infection. However, there is increasing evidence that a variety of probiotic agents are useful as adjunctive therapy, which can both enhance the success of eradicating the gastric pathogen while, reduce the frequency and severity of adverse effects arising from the other agents that are employed in current combination treatment regimens.

Future studies should assess the role of prebiotics and synbiotics and products derived from probiotics as additional options for use in the prevention and treatment of *H. pylori* infection in humans.

Key words: Probiotic, *Helicobacter pylori*

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