HELICOBACTER PYLORI AND PROBIOTICS

To the Editor:

In their excellent review article on Helicobacter pylori, Drs. Hardin and Wright discussed new and emerging therapies that have potential in the treatment and prevention of H. pylori infection. An additional area of emerging research which deserves mention is that of probiotic therapy, generally defined as using viable bacteria to improve the intestinal microbial balance of the host. Although the research in this area is far from robust, recent investigations suggest that the administration of certain strains of lactic acid bacteria can be helpful in the eradication of H. pylori.

Several in vitro, animal, and human studies have shown that various lactobacillus strains have an anti-H. pylori effect. The suppressive effect of probiotics on H. pylori may result from production of lactic acid and other directly antimicrobial compounds, as well as from elicitation of an immune response by the host. The H. pylori eradication appears to be strain specific; research shows that not all strains of lactic acid bacteria can lead to eradication in vivo. Perhaps the most exciting and clinically relevant area of research related to probiotics and H. pylori involves the combination of lactic acid bacteria and standard triple therapy. Patients undergoing triple therapy report lower incidence of diarrhea, nausea, and taste disturbance when given Lactobacillus casei subspecies rhamnosus strain (Lactobacillus GG) in both open-label and placebo-controlled trials. These findings have important implications for physicians, given the growing global concern related to antibiotic resistance. While probiotics are not a substitute for the well-established antimicrobial intervention in H. pylori eradication, it appears their coadministration with traditional agents can increase compliance by reducing adverse effects. The administration of lactic acid bacteria may be a means to reduce antibiotic resistance.

Although probiotic therapy has the potential to play an adjuvant role in the treatment of H. pylori infection, its role has yet to be fully established. Most of the pertinent research has been published very recently, and it is clear that further investigations are required. In the meantime, in the context of a concise review of H. pylori, physicians in the hospital setting should be made aware of this emerging area of research.

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References


In reply:

We appreciate the comments and work of Dr. Logan and others pursuing adjuncts and alternatives in the treatment of H. pylori infection. Unfortunately, H. pylori is a complex and adaptive organism with mechanisms in place to resist our efforts at eradication. However, there are no placebo-controlled human clinical trials in place to validate routine use of lactobacillus or other probiotics in treating H. pylori infection. As such, probiotics cannot yet be recommended as part of a therapeutic regimen, although investigation into these agents seems promising.

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