H. pylori May Protect Against Barrett's Esophagus

BY DENISE NAPOLI

FROM GASTROENTEROLOGY

Helicobacter pylori infection, chronic active gastritis, and intestinal metaplasia share similar epidemiologic patterns, and are significantly associated with each other, Dr. Amnon Sonnenberg and colleagues reported.

Moreover, all three diagnoses are inversely associated with the presence of Barrett's metaplasia, they found.

Dr. Sonnenberg of the Portland (Ore.) VA Medical Center and Oregon Health and Science University, Portland, and colleagues looked at histology reports from 78,985 patients who had gastric and esophageal biopsies between April 2007 and March 2008. Patients were treated by approximately 1,500 gastroenterologists distributed throughout the United States (Gastroenterology 2010 December [doi:10.1053/j.gastro.2010.08.018]).

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Major Finding: Based on histology reports, patients with chronic active gastritis were extremely likely to have *H. pylori* infection (OR, 457), more than twice as likely to have intestinal metaplasia (OR, 2.10), and half as likely to have Barrett's metaplasia (OR, 0.48).

Data Source: A retrospective database analysis from a national sample of gastric biopsy samples from 78,985 unique patients.

Disclosures: Lead author Dr. Sonnenberg disclosed being supported by a grant from Takeda Pharmaceutical Co. Two other investigators are employees of Caris Life Sciences.

All samples were processed by Caris Life Sciences Inc., a gastrointestinal laboratory that works with private outpatient endoscopy centers, at facilities in Phoenix, Boston, and Irving, Tex.

The researchers found that patients who were positive for *H. pylori* infection had a startlingly high odds ratio for chronic active gastritis: 456. They were also twice as likely to have intestinal metaplasia (OR, 2.00).

However, having *H. pylori* was apparently protective against a diagnosis of Barrett's metaplasia, in the esophagus: The OR for having the latter among *H. pylori*-positive patients was 0.42.

Similarly, patients who were histologically positive for chronic active gastritis were extremely likely to have *H. pylori* (OR, 457), more than twice as likely to have intestinal metaplasia (OR, 2.10), and roughly half as likely to have Barrett's metaplasia (OR, 0.48). Analyses linking intestinal metaplasia to these conditions revealed an OR of 2.07 for *H. pylori*, 2.15 for chronic active gastritis, and 0.61 for Barrett's esophagus.

Dr. Sonnenberg and colleagues also found that all three diagnoses were more common among men than women, and that "compared with other insurance types, Medicaid was more common in patients with all three diagnoses."

Additionally, there was a higher concentration of all three diagnoses in Puerto Rico, New York, South Carolina, and New Mexico, compared with the rest of the country, possibly because of "an underlying variation in the socio-economic well-being among populations from different states," Dr. Sonnenberg and associates noted.

According to the authors, although an inverse relationship between *H. pylori*–induced gastritis and Barrett's esophagus has already been suggested in multiple studies, many of those analyses "were based on small population samples, clinical observations, or indirect evidence of opposing epidemiologic trends among *H. pylori* or peptic ulcer versus gastroesophageal reflux disease."

In contrast, the current study offers a "direct and inverse relationship between the histologic findings of Barrett's mucosa and *H. pylori*–induced gastritis," they wrote.

"Using histological findings to assess the underlying epidemiology represents a new way to study epidemiologic patterns," the investigators added.

However, the researchers conceded that the study was not without limitations. For one, it "lacks any data to assess the influence of *H. pylori*–induced gastritis on hyposecretion of acid," they wrote. ■