The Odd Couple: Active H. pylori Infection Within Long Segment Barrett's Esophagus

BROWN

While Barrett's esophagus and H. pylori are both associated with carcinogenesis, rarely are they observed together.

Background

- Barrett's esophagus (BE) is a consequence of poorly-controlled GERD leading to intestinal metaplasia
- BE predisposes to esophageal cancer
- H. pylori is linked to gastric cancer
- Negative association between H. pylori and risk of BE

Case Description

- 54-year-old woman referred for one month of dysphagia
- Also endorsed long-standing heartburn and belching
- EGD: 5 cm segment of circumferential salmon-colored mucosa suspicious for BE, one small esophageal ulcer
- Gastric biopsies: mild gastritis, H. pylori
- Esophageal biopsies: intestinal metaplasia, H. pylori
- Started quadruple therapy with metronidazole, tetracycline, omeprazole, and bismuth

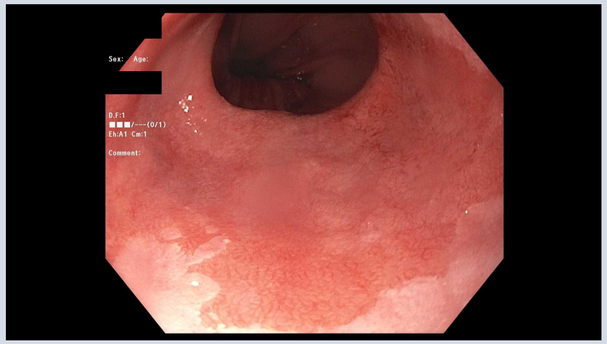

Figure 1. Esophagoduodenoscopy (EGD) image of 5 cm circumferential salmon mucosa consistent with Barrett's esophagus.

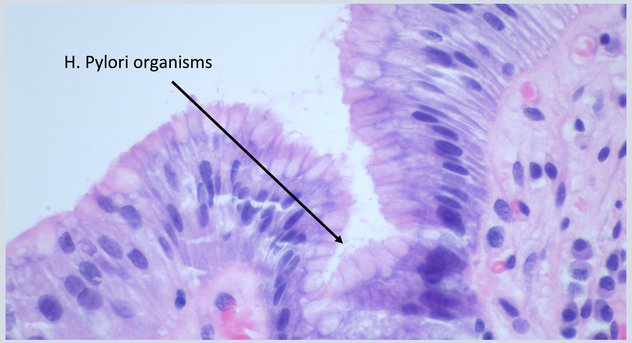

Figure 2. Hematoxylin and eosin (H&E) stain of esophageal mucosa demonstrating intestinal metaplasia and H. pylori organisms.

Discussion

- Existing evidence suggests an inverse association between H. pylori and BE
  - H. pylori may protect against BE via decreased acid production
  - A recent meta-analysis demonstrated this association disappeared in active GERD
- BE may have been present long prior to infection
- H. pylori within BE mucosa is even rarer. Has a predilection for gastric mucosa
- GERD may have allowed the H. pylori to reflux upward
- Possible satellites of gastric mucosa within the BE
- More observation needed to determine significance and long-term effects of active H. pylori infection in BE

References

- Fischbach LA, et al. Association between Helicobacter pylori and Barrett's esophagus: a case-control study. Am J Gastroenterol. 2014 Mar;109(3):357-68
- Wang Z, et al. Helicobacter pylori Infection Is Associated With Reduced Risk of Barrett's Esophagus: An Analysis of the Barrett's and Esophageal Adenocarcinoma Consortium. Am J Gastroenterol. 2018 Aug;113(8):1148-1155

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