***Helicobacter pylori*-positive inlet patch without concurrent *Helicobacter pylori* gastritis: case report of a patient with sleeve gastrectomy**

Thinzar Lin^a, Sandar Linn^b, Mel A. Ona^c, Sushil Duddempudi^d

The Brooklyn Hospital Center, Brooklyn, New York, Academic Affiliate of The Icahn School of Medicine at Mount Sinai, Clinical Affiliate of The Mount Sinai Hospital, Brooklyn, New York; Cedars-Sinai Medical Center, Los Angeles, CA, USA

A 54-year-old Hispanic male presented to the clinic with chronic dyspepsia and uncontrolled reflux symptoms not responding to acid-suppression therapy with a proton pump inhibitor (PPI). His past history was remarkable for sleeve gastrectomy one year previously. PPI therapy was stopped two weeks prior to endoscopy to promote the yield of a *Helicobacter pylori* (*H. pylori*) test. Esophagogastroduodenoscopy revealed gastric-like mucosa 2 cm in diameter in the proximal esophagus, suggestive of an inlet patch (Fig. 1). The biopsy of the esophageal lesion confirmed the gastric mucosa, showing mild chronic inflammation and a positive immunohistochemical stain for *H. pylori* (Fig. 2). Biopsies from the gastric mucosa were only significant for chronic gastritis, with a negative *H. pylori* stain.

Gutierrez *et al* suggested that 73% of cases of *H. pylori* gastritis were associated with *H. pylori* infection of an inlet patch and that such an infection is highly related with the density of *H. pylori* colonies in the stomach [1]. To our knowledge and to date, this report is the first case of isolated *H. pylori* infection in a cervical inlet patch without concurrent *H. pylori* gastritis [2,3].

The case is also unique because of the prior history of sleeve gastrectomy. The mechanism of isolated *H. pylori* infection in patients who have undergone sleeve gastrectomy remains unclear; our proposed theory is that the altered stomach anatomy reduces its isolation and promotes *H. pylori* colonization in other parts of the gastrointestinal tract.

Figure 1 Narrow-band imaging of the gastric-like mucosa in the upper esophagus

Figure 2 Immunohistochemical stain reveals that the inlet patch gastric mucosa is positive for *Helicobacter pylori* microorganisms (immunoperoxidase 20x)

Further studies are warranted to confirm the mechanism of isolated *H. pylori* colonization in a cervical inlet patch and its association with sleeve gastrectomy.

^aDepartment of Internal Medicine, The Brooklyn Hospital Center, Brooklyn, New York (Thinzar Lin), ^{b,c,d}Division of Gastroenterology and Hepatology, Department of Internal Medicine, The Brooklyn Hospital Center, Academic Affiliate of The Icahn School of Medicine at Mount Sinai, Clinical Affiliate of The Mount Sinai Hospital, Brooklyn, New York (Sandar Linn, Mel A. Ona, Sushil Duddempudi); ^eDivision of Digestive and Liver Diseases, Cedars-Sinai Medical Center, Los Angeles, CA (Mel Ona), USA

Conflict of Interest: None

Correspondence to: Sandar Linn, MD 240 Willoughby Street, Apt 18 J, Brooklyn, NY 11201, USA, Tel.: +1 718 757 5808, e-mail: slinn@tbh.org

Received 9 October 2016; accepted 21 October 2016; published online 4 November 2016

DOI: <https://doi.org/10.20524/aog.2016.0102>

References

1. Gutierrez O, Akamatsu T, Cardona H, Graham DY, El-Zimaity HM. *Helicobacter pylori* and heterotopic gastric mucosa in the upper esophagus (the inlet patch). *Am J Gastroenterol* 2003;**98**:1266-1270.
2. Alagozlu H, Simsek Z, Unal S, Cindoruk M, Dumlu S, Dursun A. Is there an association between *Helicobacter pylori* in the inlet patch and globus sensation? *World J Gastroenterol* 2010;**16**:42-47.
3. Truong LD, Stroehlein JR, McKechnie JC. Gastric heterotopia of the proximal esophagus: a report of four cases detected by endoscopy and review of literature. *Am J Gastroenterol* 1986;**81**:1162-1166.