ACG CASE REPORTS JOURNAL

IMAGE | SMALL BOWEL

Small Bowel Giant Polypoid Gastric Heterotopia Causing Refractory Iron Deficiency Anemia

Ehizokha O. Ihionkhan, BA[1], Matthew A. Odenwald, MD[2], Fares Ayoub, MD[2], S. Dharan Kumar, MD[3], and Edwin K. McDonald IV, MD[2]

[1]*Section of Gastroenterology, Hepatology, and Nutrition, The University of Chicago, Chicago, IL*
[2]*Department of Internal Medicine, Section of Gastroenterology, Hepatology, and Nutrition, The University of Chicago, Chicago, IL*
[3]*Gastroenterology, Edward-Elmhurst Health, Elmhurst, IL*

CASE REPORT

A 33-year-old woman was referred for persistent iron deficiency anemia despite unremarkable bidirectional endoscopy a few years earlier and definitive management of menorrhagia with a total hysterectomy. Repeat upper endoscopy with random gastric and duodenal biopsies was without diagnostic abnormality. Subsequent video capsule endoscopy (VCE) revealed a large polypoid lesion in her proximal small bowel (Figure 1). An anterograde double-balloon enteroscopy (DBE) confirmed the presence of a large, nearly obstructing polypoid lesion with a hamartomatous appearance in the proximal jejunum (approximately 20 cm distal to the ligament of Treitz) (Figure 2). However, the obtained biopsy tissue was insufficient for definitive diagnosis. Because of the nearly obstructing nature of this lesion, the distal edge could not be marked with a tattoo. She underwent a DBE-assisted laparoscopic small bowel resection with primary anastomosis to ensure clear margins with minimal resection. Grossly, there were 2 distinct polypoid lesions approximately 5 cm apart and measuring up to 13.5 cm and 4 cm in their largest dimensions. The final histologic diagnosis was giant polyploid gastric heterotopia (Figures 3 and 4). Since resection of this short segment 3 months ago, her iron stores, anemia, and fatigue have all improved.

Figure 1. A large, multilobulated polypoid lesion was seen in the proximal small bowel by video capsule endoscopy (VCE). Given lack of luminal distension with VCE, the lesion was identified but not fully characterized by VCE.

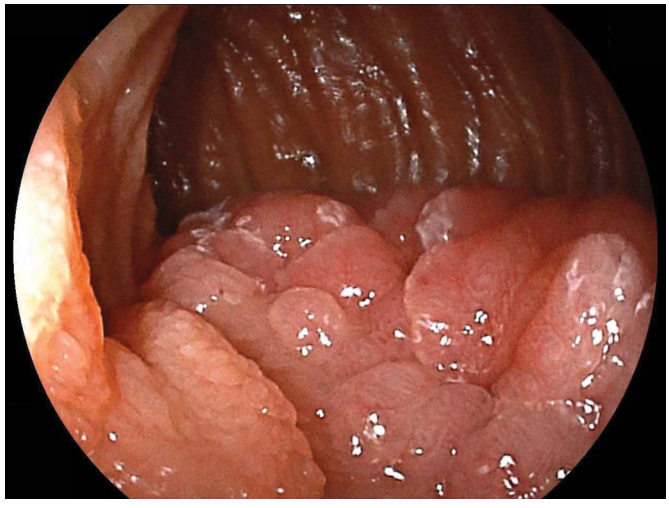

Figure 2. The same lesion was seen in the proximal-jejunum using anterograde double-balloon enteroscopy. The multilobulated polypoid lesion had a hamartomatous appearance, was approximately 50% circumferential, and was nearly obstructing.

ACG Case Rep J 2021;8:e00623. doi:10.14309/crj.0000000000000623. Published online: June 30, 2021

Correspondence: Matthew A. Odenwald, MD (matthew.odenwald@uchospitals.edu).

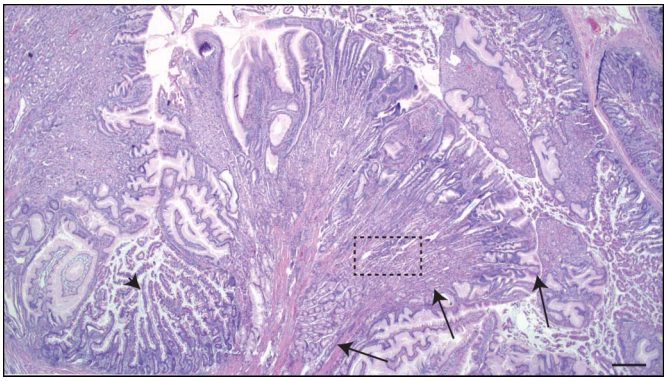

Figure 3. Low-power histology of hematoxylin and eosin–stained sections of the surgically resected specimen. This image shows the edge of the polyp with full-thickness gastric mucosa (arrows) adjacent to normal jejunal mucosa (arrowhead). The box denotes the area of gastric epithelium shown in higher power in image 4. Bar = 200 μm.

American Gastroenterological Association guidelines recommend bidirectional endoscopy to evaluate iron deficiency anemia in premenopausal women based on the frequent coexistence of gastrointestinal disorders and severe iron deficiency anemia in this population.[1] Recommendations for small bowel evaluation are less definitive, but in our patient, a small bowel source of bleeding was a strong possibility given persistent anemia despite normal bidirectional endoscopy and definitive menorrhagia therapy. VCE is the most effective tool for recognizing small bowel pathology,[4,5] and DBE is often needed to obtain tissue for diagnosis or to perform therapeutic intervention if VCE reveals a small bowel abnormality.

Heterotopic gastric mucosa (HGM) can be found throughout the gastrointestinal tract, although small bowel HGM is rare if not associated with the Meckel diverticulum.[2,3] HGM can be congenital or acquired. Acquired HGM results from recurrent mucosal injury or inflammation and is the presumed mechanism of HGM distal to the ligament of Treitz.[2] Polypoid gastric heterotopia appears endoscopically similar to other intestinal pathologies. Therefore, definitive diagnosis relies on histology demonstrating ectopic gastric mucosa. Treatment centers around symptoms and includes either (i) no treatment for asymptomatic lesions, (ii) proton pump inhibitor for acid-related symptoms, or (iii) resection.[3] Because of her persistent, symptomatic anemia, our patient was definitively treated with minimally invasive surgical resection.

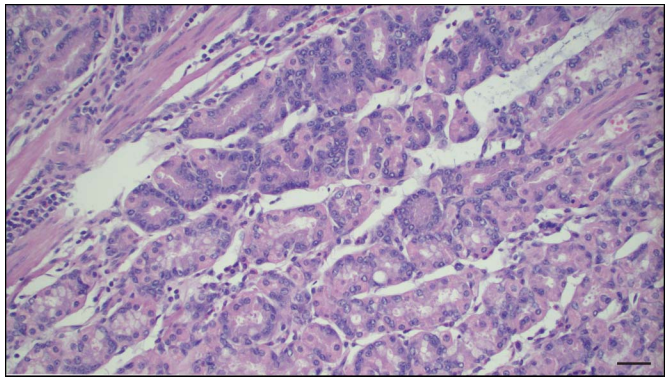

Figure 4. High-power histology of hematoxylin and eosin–stained sections of the surgically resected jejunal specimen. This image demonstrates gastric epithelium. Bar = 20 μm.

DISCLOSURES

Author contributions: All authors contributed equally to this manuscript. E.K. McDonald is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received November 14, 2020; Accepted March 31, 2021

REFERENCES

1. Ko CW, Siddique SM, Patel A, et al. AGA clinical practice guidelines on the gastrointestinal evaluation of iron deficiency anemia. *Gastroenterology.* 2020;159:1085–94.
2. Yu L, Yang Y, Cui L, Peng L, Sun G. Heterotopic gastric mucosa of the gastrointestinal tract: Prevalence, histological features, and clinical characteristics. *Scand J Gastroentero.* 2013;49:138–44.
3. Devereaux CE, Devereaux RG. Heterotopic gastric mucosa of the rectum with a review of the literature. *J Clin Gastroenterol.* 1994;19:41–5.
4. Triester SL, Leighton JA, Leontiadis GI, et al. A meta-analysis of the yield of capsule endoscopy compared to other diagnostic modalities in patients with obscure gastrointestinal bleeding. *Am J Gastroenterol.* 2005;100:2407–18.
5. Liao Z, Gao R, Xu C, Li ZS. Indications and detection, completion, and retention rates of small-bowel capsule endoscopy: A systematic review. *Gastrointest Endosc.* 2010;71:280–6.