

# Unique Presentation of Acute Gastric Diverticulitis Resolved With Antibiotics

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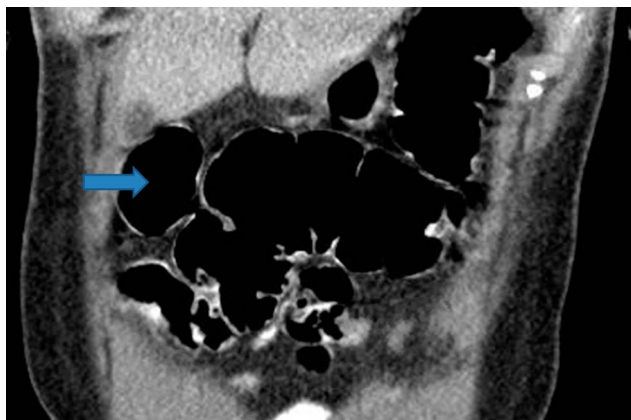
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## CASE REPORT

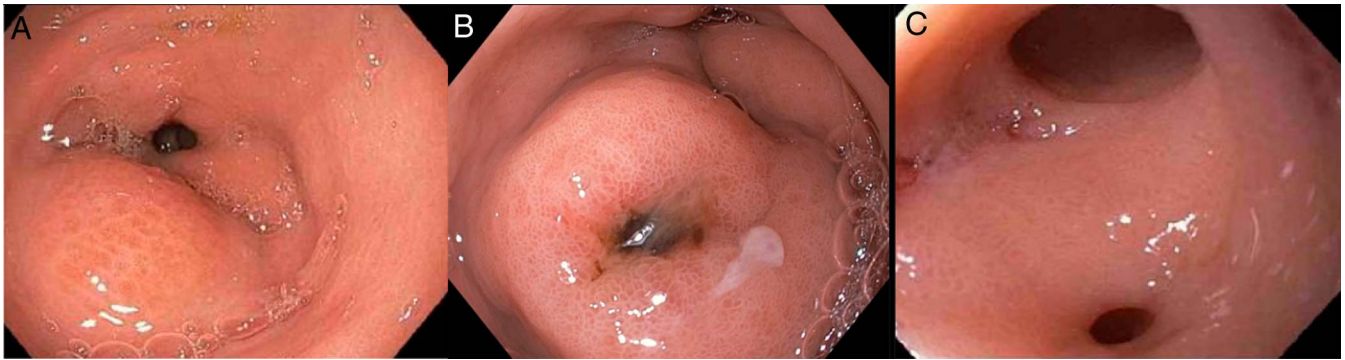
A 47-year-old woman who previously underwent ovarian cyst removal presented to the hospital with complaints of worsening prandial pain for several months. Over four days before presentation, the pain worsened progressively. She reported no weight loss or vomiting. Esophagogastroduodenoscopy (EGD) performed 1 year prior showed an outpouching near the pylorus.

Abdominal and pelvic computed tomography on admission showed a 2.5-cm cystic lesion within the anterior gastric wall in the pylorus region (Figure 1). Initial EGD revealed an antral diverticulum with overlying submucosal bulge that was soft to touch, corresponding to a hypodense lesion on the computed tomography scan without evidence of pus or ulceration, prompting further investigation. Subsequent endoscopic investigation with endoscopic ultrasound found an ulceration draining pus over the diverticulum and an additional tract (Figure 2). The ulceration was not noted on initial EGD during current hospitalization. Endoscopic ultrasound images showed a 3.5 cm × 4.5 cm hypoechoic, homogenous mass with diverticular tracts with cystic space noted above the muscularis propria (Figure 3). Samples were taken from the cystic space using a 22-gauge fine-needle aspiration and a 22-gauge fine-needle biopsy. Cultures were negative. Cytopathology results showed acute and chronic inflammatory cells, predominantly acute comprising of neutrophils without any evidence of necrosis or malignant cells, consistent with gastric diverticulitis (Figure 4).

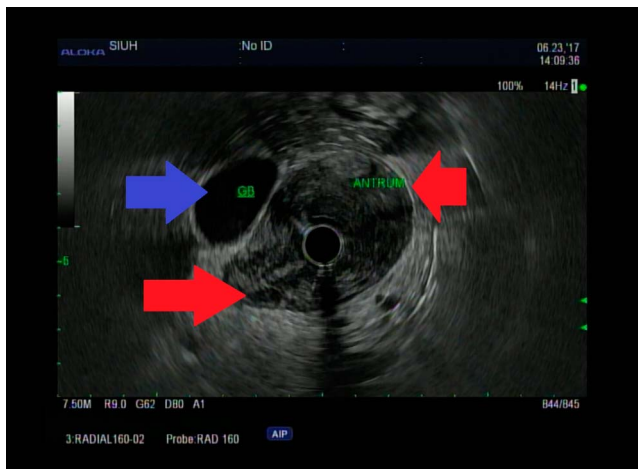
After the procedure, the patient was observed for 24 hours because of fever and administered intravenous ciprofloxacin and metronidazole, which was converted on discharge to oral formulation for a total course of 14 days. Her symptoms abated on follow-up. Six months later, the patient reported no further symptoms, and no further studies were conducted.



**Figure 1.** Pelvic and abdominal computed tomography showing gastric diverticulum defined as hypodense lesion (arrow).



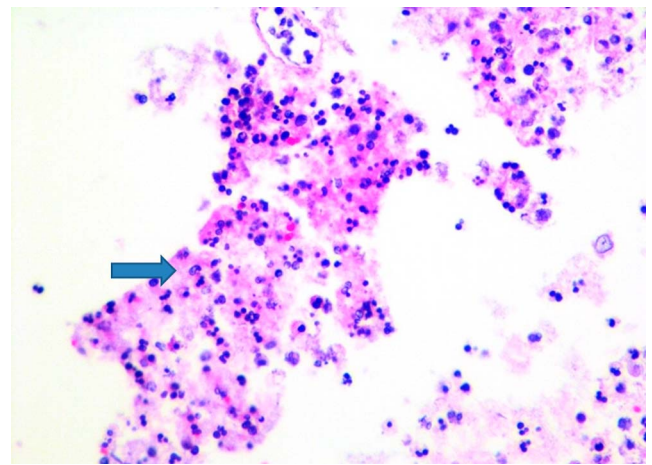
**Figure 2.** Esophagogastroduodenoscopy showing (A) submucosal bulge, (B) a mass on the overlying diverticular tract, and (C) an ulceration draining pus over the diverticulum.



**Figure 3.** Endoscopic ultrasound image showing a hemi-circumferential mass of 3.5 × 4.5 cm (blue arrow) and antrum submucosa (red arrows).

A gastric diverticulum is an acquired or congenital out-pouching of the wall of the stomach. It results from the herniation of the mucosa and submucosa through the muscular wall.<sup>1</sup> Presenting symptoms include vague epigastric pain exacerbated after eating but can also present as hemorrhage or perforation.<sup>2,3</sup> Endoscopic investigation diagnosed between 0.01% and 0.11% of gastric diverticula.<sup>4</sup>

Treatment is based on the severity of symptoms. Dyspeptic symptoms can be treated with proton-pump inhibitors or histamine H2 antagonists for several weeks.<sup>4</sup> Large, symptomatic, or complicated by bleeding diverticula can be treated surgically via a laparoscopic approach or open approach.<sup>4</sup> Although cases describe gastric diverticula, there are no cases describing gastric diverticulitis. Our case had full resolution of symptoms using antibiotics similar to colonic diverticulitis.<sup>5</sup> As a unique presentation, it is important to be aware that there is a possibility of gastric diverticulitis, and further studies need to determine the efficacy of antibiotics in treating gastric diverticulitis. Studies describe the lack of need of antibiotics for colonic diverticulitis



**Figure 4.** Microscopic examination of the cell block showing abundant neutrophils (arrow), 400× magnification.

and further studies to elucidate the need for antibiotics for cases such as these.<sup>6</sup> Although common in the colon, and described only as a diverticulum in the stomach, physicians should be aware of development of diverticulitis in other parts of the gastrointestinal tract to guide treatment.

## DISCLOSURES

**Author contributions:** All authors contributed to the writing and editing of this submission equally. M. Krzyzak is the article guarantor.

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**Informed consent** was obtained for this case report.

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