

Ischemic Gastropathy vs. Severe *H. pylori* Gastritis in a Patient with Extensive Vascular Disease

Nicole B. Salvi, BA¹, Joshua D. Kirschenbaum, BS¹, Barathi Sivasailam, MD^{1,2}, Renee L Williams, MD, MHPE, FACG^{1,2}

¹NYU Grossman School of Medicine, ²NYU Langone Health - Department of Gastroenterology

American College of Gastroenterology
2022 Annual Meeting

INTRODUCTION

- Approximately half of gastric ulcers are associated with *H. pylori*.¹
- Conversely, gastric ulceration secondary to ischemia is rare due to the stomach's abundant vascular supply which derives from all three branches of the celiac artery.²
- Here we report a case of a patient with upper gastrointestinal bleeding and concern for gastric ischemia who underwent upper endoscopy with biopsy.

CASE

A 70-year-old female with severe peripheral artery disease, abdominal aortic aneurysm status post endovascular repair, hypertension, HIV, chronic kidney disease and B-cell lymphoma was admitted for pathologic right hip fracture for which she underwent open reduction and internal fixation. The procedure was complicated by lactic acidosis, an elevated troponin, and transaminitis in the setting of intraoperative hypotension. Six days later the patient had coffee ground emesis and melena with a lactate of 9.8 mmol/L and a hemoglobin of 6.4 g/dL, from 8.9 g/dL one day prior. 2 units of packed red blood cells were administered, anticoagulation was stopped, and a proton pump inhibitor was given. CT angiography of the abdomen and pelvis demonstrated diffuse vascular contraction, splenic infarction, marked reduction in caliber of multiple mesenteric vessels with near-total occlusion of the celiac artery (Figure, A) and concern for ischemia of the stomach and cecum with significant distention of the stomach (Figure, B). Upper endoscopy demonstrated severe gastric mucosal pallor and decreased vascular pattern, diffuse linear erosions throughout the gastric fundus and body, and multiple large superficial ulcerations without active bleeding (Figure, C and D). Given the appearance of the mucosa and overall clinical picture, there was concern for ischemic gastritis and biopsies were taken. Histology later revealed erosive gastritis, regenerative change and *H. pylori*. There was no histological evidence of microthrombi or changes consistent with ischemia and the patient was started on quadruple therapy for *H. pylori* gastritis. She had one further episode of melena and received an additional blood transfusion before she was discharged one week later.

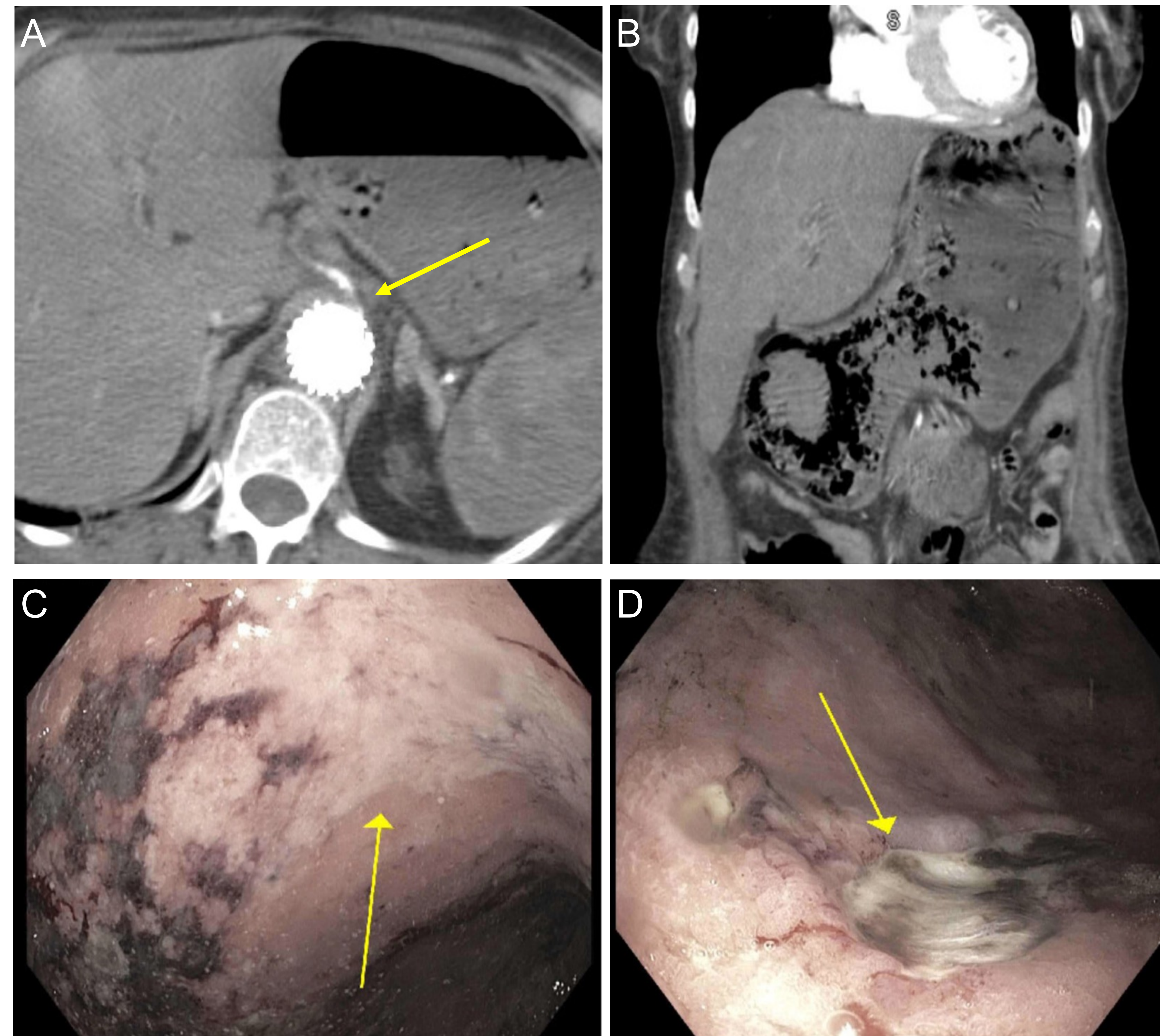


Figure. A) CT angiography of the abdomen and pelvis demonstrating near-total occlusion of the celiac artery (arrow) and B) significant gastric distention. C) Esophagogastroduodenoscopy demonstrating mucosal pallor (arrow) and D) large ulcerations (arrow) within the gastric body.

DISCUSSION

- This patient had extensive vascular disease with involvement of the celiac artery and a recent episode of systemic hypotension, together increasing the risk of gastric ischemia.
- While biopsies were consistent with *H. pylori* gastritis, the severity of the ulcerations visualized on endoscopy were highly suspicious for ischemic injury.
- Ischemic gastropathy should be considered in cases of an upper GI bleed in patients with vascular risk factors and/or recent episodes of systemic hypoperfusion.
- Limited guidelines suggest management of ischemic gastropathy with fluid resuscitation, NG tube placement and IV PPIs with or without antibiotics while addressing the underlying cause of compromised perfusion.^{2,3}

REFERENCES

1. Kurata JH, Nogawa AN. Meta-analysis of risk factors for peptic ulcer. Nonsteroidal antiinflammatory drugs, Helicobacter pylori, and smoking. J Clin Gastroenterol. 1997 Jan;24(1):2-17.
2. Tang SJ, Daram SR, Wu R, Bhajee F. Pathogenesis, diagnosis, and management of gastric ischemia. Clin Gastroenterol Hepatol. 2014 Feb;12(2):246-52.e1.
3. Jarodiya V, Kher C, Nanthabalan S, Shah G. Urosepsis Causing Gastric Ischemia: A Rare but Deadly Complication. Case Rep Gastrointest Med. 2019 Sep 24;2019:3682049.