Upper gastrointestinal bleeding due to duodenal ischemia – a case series

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Introduction

- Duodenal ischemia is a rare entity given dual blood supply from branches of the Celiac axis and Superior Mesenteric artery. However, it may present with clinically significant GI bleeding. We present three cases of duodenal ischemia diagnosed on EGD.

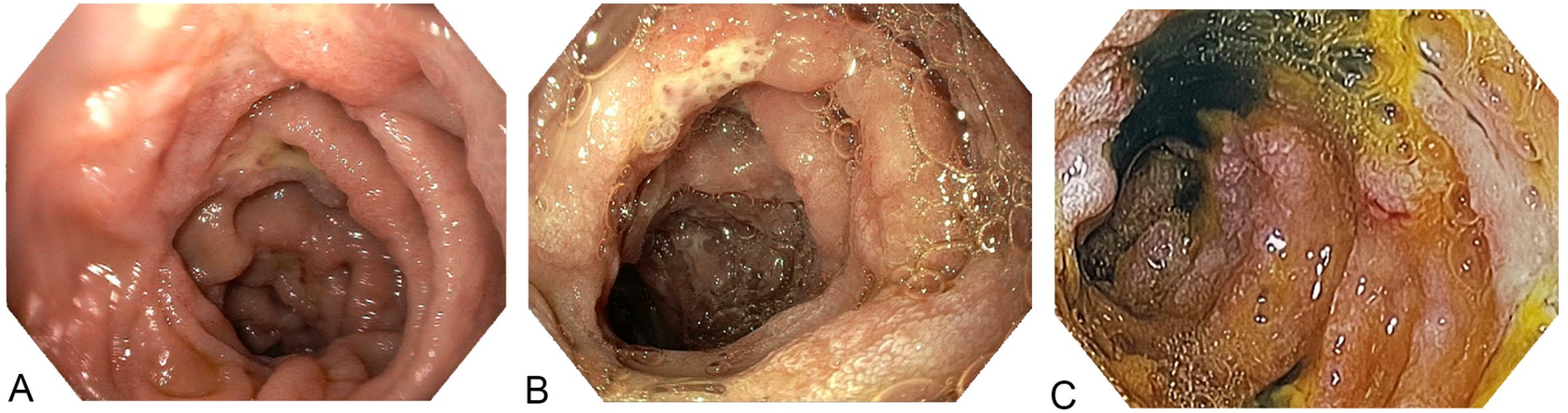

Figure 1: Endoscopic images of duodenal ischemia

Case 1:

- An 84-year-old lady with heart failure presented with abdominal pain and melena. Vitals were BP 90/55, HR 112. She was cachectic with a mildly tender abdomen.
- Labs were notable for hemoglobin 6.6 g/dL from baseline of 8.2; BUN 65 mg/dL. CT abdomen noted bowel wall edema involving the duodenum.
- EGD revealed 4-5 duodenal ulcers with surrounding erythematous and friable mucosa consistent with ischemia (Figure 1A). She was discharged in stable condition on pantoprazole BID.

Case 2:

- A 63-year-old lady presented with chest pain and was diagnosed with an inferior STEMI. On presentation vitals were BP 76/50 mmHg and HR 43 bpm. Cardiac catheterization was performed with two drug-eluting stents placed in the right coronary artery. Patient was started on aspirin and clopidogrel and developed melena 3 days later.
- Hemoglobin dripped from 12.4 to 8.4 g/dL. EGD noted pallor of the gastric body with areas of patchy erythema and erosions within the antrum, in addition to several clean based ulcers with erythema within the duodenal bulb through the second portion (Figure 1B).
- Admission CT abdomen showed moderate celiac narrowing. Patient was continued on pantoprazole BID and did not have further bleeding episodes prior to discharge.

Case 3:

- A 63-year-old man with ESRD was admitted with endocarditis, MSSA bacteremia and embolic strokes. On day 9, he suffered PEA arrest and was resuscitated. He subsequently developed melena and shock. Hemoglobin dropped from 9.8 g/dL to 6.6 g/dL.
- Urgent EGD revealed a diffusely hemorrhagic stomach and the duodenum was noted to have spotty areas of necrosis, erosions and ulcerations within the bulb and second portion (Figure 1C).
- CTA revealed moderate to severe stenosis in the proximal SMA and celiac axis. The patient was transitioned to comfort measures after suffering recurrent embolic strokes during admission.

Conclusion:

- Clinicians should maintain a high index of suspicion for duodenal ischemia in patients presenting with upper GI bleeding in the setting of a low-flow state, as illustrated in the above three cases. Management is typically supportive; however prognosis may be poor reflecting patients' systemic illnesses leading to the process.

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