The Master of Disguise: Isolated Gastric Variceal Hemorrhage as a Complication of Endoscopic Gastric Biopsy

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Introduction

- Splenic vein thrombosis (SVT) causes left-sided portal hypertension that can result in the formation of gastric varices.
- Gastric varices can either be isolated or contiguous with esophageal varices.
- Isolated gastric varices (IGV) may be difficult to distinguish from gastric rugae.
- IGV are responsible for 10-30% of all variceal bleeds.

Case Presentation

- A 61-year-old male with a past medical history of coronary artery disease on aspirin and clopidogrel presented to the emergency department with 2 days of black tarry stools and associated dyspnea and heart palpitations.
- Over the past 6 months, he developed a new anemia (hemoglobin 10 mg/dL) and an unexplained 25-pound weight loss.

Case Presentation Continued

- He underwent esophagogastroduodenoscopy (EGD) 2 days prior to presentation during which a protruding lesion in the gastric fundus was biopsied.
- On initial presentation, he was hemodynamically stable with epigastric tenderness to palpation.
- Initially, his hemoglobin was 8.1 mg/dL, which further decreased to 6.6 mg/dL that evening requiring packed red blood cell transfusion.
- Computed tomography of the abdomen with IV contrast showed a 4.6 cm pancreatic tail lesion with associated splenic vein thrombosis.
- The patient underwent EGD with endoscopic ultrasound (EUS) which revealed a fundal isolated gastric varix with stigmata of recent bleeding.
- EUS guided biopsy results of the pancreatic tail lesion demonstrated a well-differentiated neuroendocrine tumor.

Discussion

- Gastric varices (GV) are categorized based on location.
- Characterization of gastroesophageal varices (GOV) include GOV1, extending from the esophagus to the lesser curvature of the stomach, and GOV2, extending from the esophagus to the greater curvature.
- Isolated gastric varices (IGV) include IGV1 in the fundus, while IGV2 are located at ectopic gastric sites (antrum, body, pylorus, incisura and duodenum).
- The most common gastric varix is GOV1 (74%). [1]
- IGV1 comprises 8% of total GV and 78% of IGV. [1]
- IGV1 typically arise from portal hypertension while most IGV2 arise secondary to prior esophageal varix obliteration. [1 2]
- A prospective cohort study noted IGV1 to bleed at a much higher rate (78%) than IGV2 (9%). [3]
- Gastric vein obliteration is the most successful modality in treating acute bleeds and harbors the lowest rebleeding rate (22%). [3]

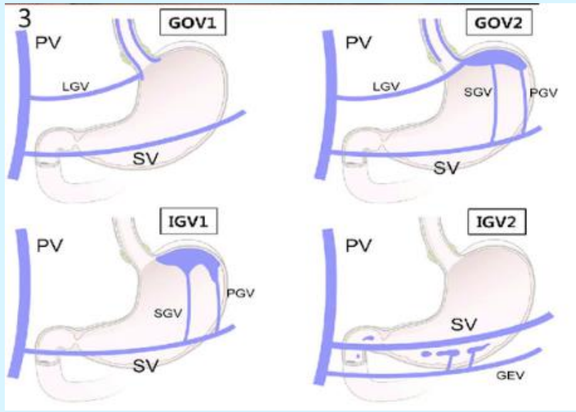

Figure 3: Anatomy of gastroesophageal varices and isolated gastric varices [4]

Conclusion

- Gastric varices were shown bleed in fewer patients when compared to esophageal varices (25% vs. 64%) but were shown to bleed more severely. [5]
- For patients with risk factors for SVT (pancreatitis, cirrhosis and other prothrombotic states) who present with a GI bleed, IGV should be included in the differential diagnosis.

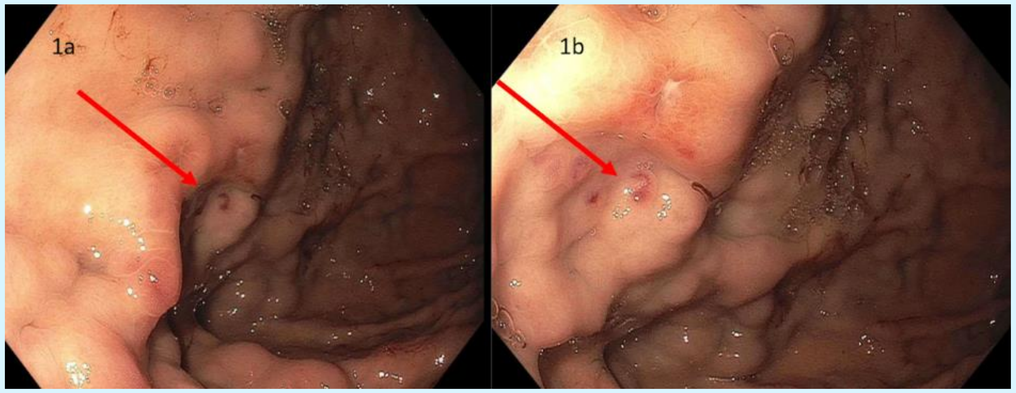

Figure 1a,b: Endoscopic image of isolated gastric varix with stigmata of recent bleeding

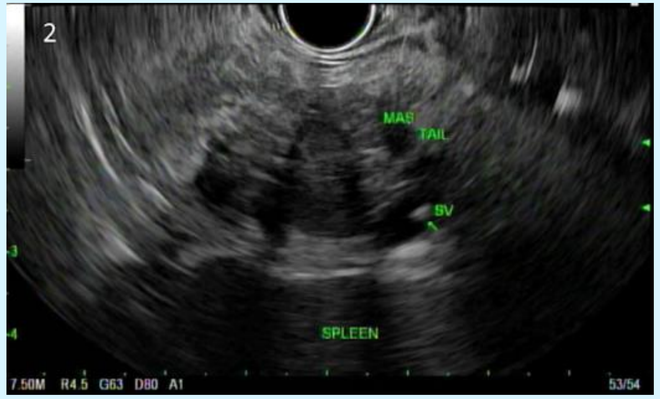

Figure 2: EUS image of the pancreatic tail mass, splenic vein t with visible thrombus

Acknowledgements

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