

# Bleeding IGV2 From Left-Sided Portal Hypertension in a Decompensated Cirrhotic

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## BACKGROUND

- Left-sided portal hypertension (LSPH) is a rare entity which makes up less than 5% of cases of portal hypertension [1].
- LSPH usually results from obstruction of the splenic vein and can manifest with life-threatening upper gastrointestinal bleeding via isolated gastric varices type 2 (IGV2).
- Due to its low incidence, LSPH may initially be misdiagnosed as generalized portal hypertension, particularly in patients with known cirrhosis.

## CASE REPORT

- A 69-year-old Caucasian male presents for hematemesis and hematochezia which started earlier that day. He is not on any anticoagulant or antiplatelet agents.
  - PMH: HBV/HCV cirrhosis complicated by ascites, hepatic hydrothorax, esophageal variceal hemorrhage, hepatic encephalopathy, chronic portal vein thrombus. Not deemed a transplant candidate.
  - Vitals: HR 74, BP 133/88, RR 16, O2 98%
  - PE: Thin male with temporal wasting. Abdomen soft, nontender, nondistended without ascites. Digital rectal exam with maroon stool.
  - Labs: BUN 37, Cr 1.25, H/H 12.5/36.2, MELD-Na 16, Child-Pugh B
- EGD revealed no active bleeding. There were small esophageal varices. Over 300 mL of old blood and several large clots were suctioned. After cleaning, an IGV2 with high-risk stigmata was located in the gastric body (Figure 1).
- Multi phase CT scan showed thrombus involving the distal superior mesenteric vein (SMV) and splenic vein with proximal occlusion and cavernous transformation of the portal vein (Figure 2).
- After multidisciplinary discussion, patient was taken to the operating room for splenectomy (Figure 3). He tolerated the procedure well and was discharged several days later without further bleeding.

## FIGURES



Figure 1. Endoscopic image of IGV2 in the gastric body

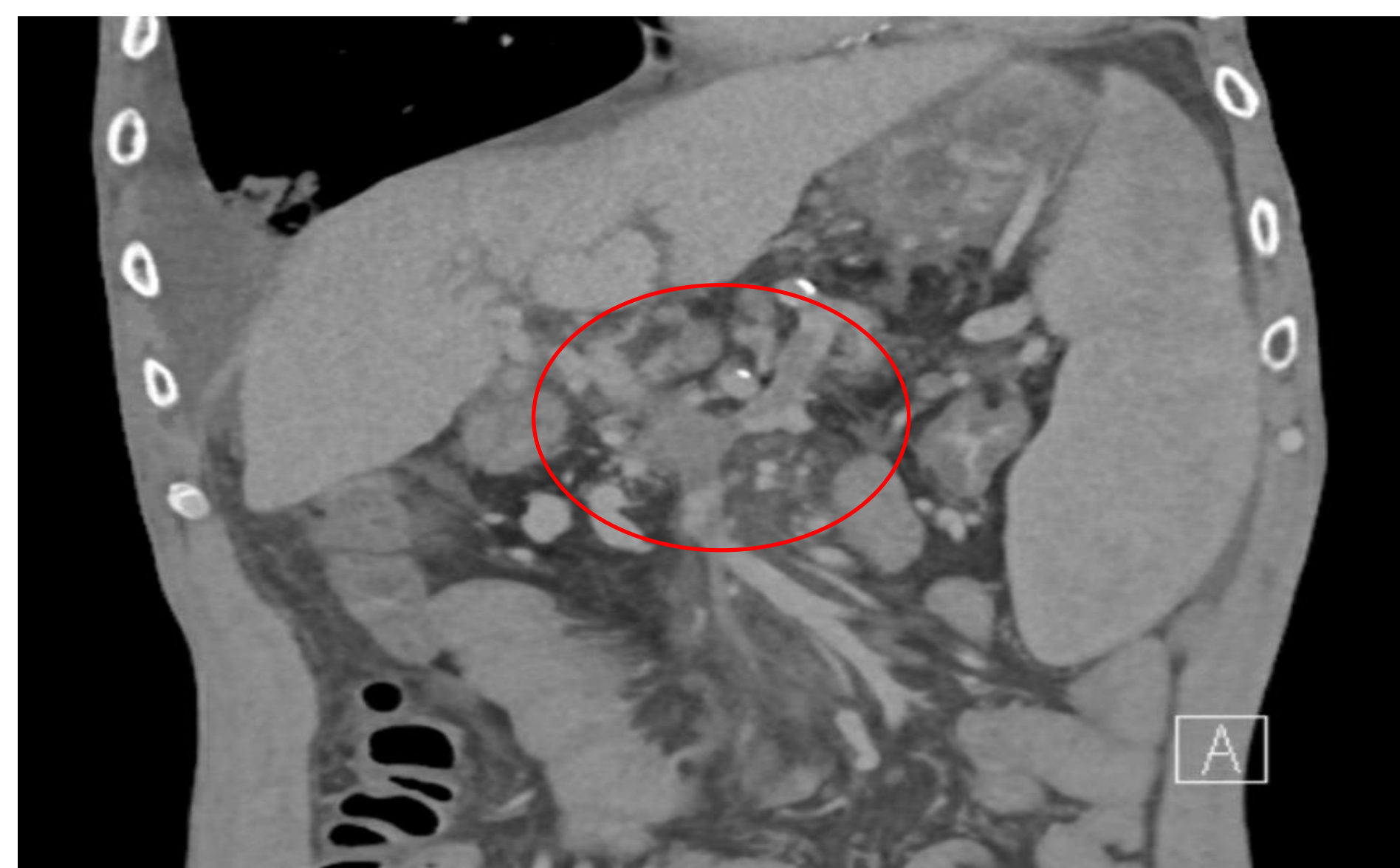


Figure 2. Superior mesenteric vein and splenic vein thrombus  
Coronal venous phase abdominal CT scan demonstrates extension of portal vein thrombus into the superior mesenteric vein and splenic vein (red circle). The spleen is noticeably enlarged.



Figure 3. Splenectomy  
The spleen and gastroepiploic veins became immediately decompressed after splenectomy. Still, the spleen measured 19.6 cm x 11.5 cm x 8.6 cm after resection.

## DISCUSSION

- Most cases of LSPH are secondary to splenic vein thrombosis from pancreatic pathology [2]. In this case, however, the patient's chronic portal vein thrombus has extended to involve the SMV and splenic vein.
- In rare cases such as this one, LSPH co-exists with generalized portal hypertension, making it crucial to identify the mechanism of bleeding.
- The presence of large IGV2 and only small esophageal varices suggests that LSPH was the predominant etiology of this patient's variceal bleeding.
- Whereas transjugular intrahepatic portosystemic shunt (TIPS) is beneficial for refractory variceal bleeding in generalized portal hypertension, it is not effective for LSPH-associated bleeding.
- While balloon-occluded retrograde transvenous obliteration (BRTO) is generally effective for gastric variceal bleeding, its use here is contraindicated due to portal vein and splenic vein thrombosis. In this setting, BRTO may compromise the patient's only splanchnic outflow tract (shunt) and lead to mesenteric ischemia [3].
- While a high-risk procedure in decompensated cirrhosis, splenectomy was felt to be the definitive therapy for the patient's condition.

## REFERENCES

1. Pereira P and Peixoto A. Left-sided portal hypertension: a clinical challenge. *GE Port J Gastroenterol.* 2015; 22(6): 231-233.
2. Kokabi N, Lee E, Echevarria C, et al. Sinistral portal hypertension: presentation, radiologic findings, and treatment options – a case report. *J Radiol Case Rep.* 2010; 4(10): 14-20.
3. Basseri S and Lightfoot CB. Balloon-occluded retrograde transvenous obliteration for treatment of bleeding gastric varices: case report and review of literature. *J Radiol Case Rep.* 2016; 11(4): 365-369.