

## First report of successful treatment of splenic artery pseudoaneurysm with endoscopic ultrasound-guided coil and glue

A 33-year-old man with chronic alcoholism presented with recurrent episodes of hematemesis and melena over an 18-month period. He had received about 20 units of packed red blood cells (PRBC). Upper gastrointestinal (GI) endoscopy performed elsewhere showed large esophageal varices and gastric varices (GOV2F2) for which three sessions of endoscopic sclerotherapy and glue injection had been performed. An abdominal ultrasound showed normal liver, with splenic vein thrombosis and collaterals around the splenic hilum.

On examination, the patient had pallor and blood test showed a hemoglobin of 6 gm/dL. Two units of PRBC was transfused and upper GI endoscopy showed eradicated esophageal varix, GOV2F2, and mild portal hypertensive gastropathy. He was diagnosed with chronic alcoholism with splenic vein thrombosis and gastric varix with GI bleed (due to the gastric varix). As the patient had previously undergone multiple glue injections for gastric varix (▶ **Fig. 1**), he was scheduled to undergo endoscopic ultrasound (EUS)-guided therapy for gastric varix.

On EUS, multiple glue cast was seen (▶ **Fig. 2 a**) with no color flow, and a 3 × 2.5 cm pseudoaneurysm was detected in the splenic artery near the region of the splenic hilum (▶ **Fig. 2 b**).

CT angiography (▶ **Fig. 3 a**) confirmed the EUS findings, and the patient was referred for EUS-guided coil and glue for the pseudoaneurysm (▶ **Video 1**). A 19-gauge fine-needle aspiration (FNA) needle was used to puncture the aneurysm, and then an embolization coil (MWCE 18–14–10; Cook Medical Inc., Bloomington, Indiana, USA) was deployed through the FNA needle, following which, 1 mL of glue was injected. There was immediate obliteration of the aneurysm.



▶ **Fig. 1** Gastric varix (hard) seen on upper gastrointestinal endoscopy.

There was no GI bleed at 1 month follow-up, and repeat CT angiography (▶ **Fig. 3 b**) and EUS showed no aneurysm.

There have been prior reports of EUS-guided therapy for splenic artery pseudoaneurysm [1], but to the best of our knowledge this is the first report of EUS-guided coil and glue for pseudoaneurysm.



▶ **Video 1** Endoscopic ultrasound showing glue cast with shadowing, splenic artery pseudoaneurysm, and injection of coil and glue into the pseudoaneurysm using a 19-gauge fine-needle aspiration needle.

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### Competing interests

None

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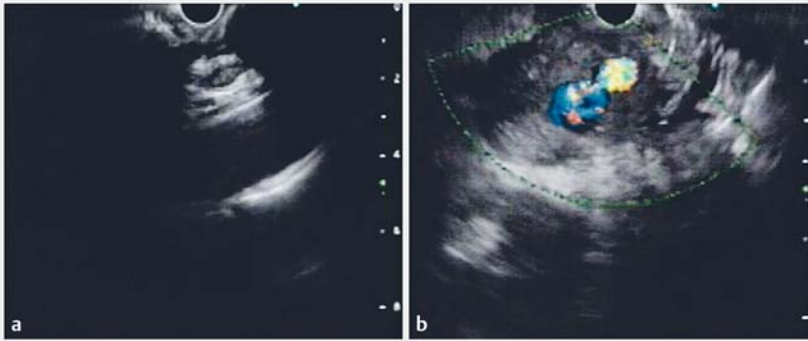
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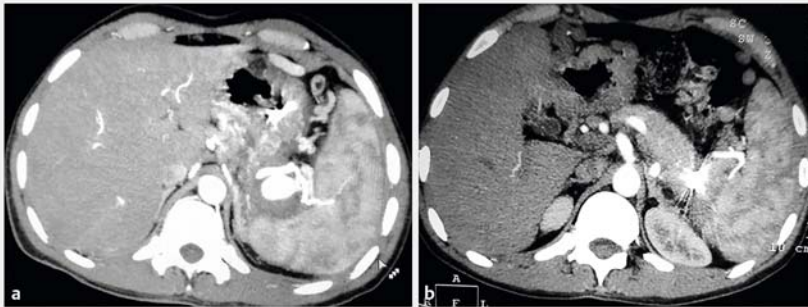
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► **Fig. 2** Endoscopic ultrasound view. **a** Acoustic shadowing of glue cast. **b** Splenic artery pseudoaneurysm.



► **Fig. 3** Computed tomography angiography. **a** Splenic artery pseudoaneurysm. **b** Complete obliteration of the pseudoaneurysm after endoscopic ultrasound-guided coil and glue therapy.

## Reference

- [1] Rai P, Mohan S, Sharma M. Endoscopic ultrasound-guided thrombin injection in a large splenic artery aneurysm: first report in a patient with tropical chronic pancreatitis. *Endoscopy* 2014; 46 (Suppl. 01): E355 – E356

## Bibliography

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