Endoscopic ultrasound-guided hemostasis of rectal varices

The prevalence of rectal varices in patients with cirrhosis ranges from 38% to 56% [1]. While lower gastrointestinal endoscopy can help diagnose rectal varices, endoscopic ultrasound (EUS) may be more accurate in patients with smaller varices [1]. Reports are limited, but techniques for EUS-guided hemostasis of rectal varices include: injection sclerotherapy [2], band ligation [3], embolization with coils [4], and glue injection [4, 5]. Interventional radiology procedures, such as transjugular intrahepatic portosystemic shunting and balloon-occluded retrograde transvenous obliteration, are helpful only in selected patients. Here we describe a unique case of EUS-guided hemostasis of rectal varices using coils and glue.

Our patient was a 54-year-old man with a history of chronic hepatitis C (genotype 1b, treatment-naïve) who presented with a 1-month history of hematochezia. His vital signs were blood pressure of 120/70 mmHg and heart rate of 70 beats per minute. Initial laboratory tests revealed the following results: hemoglobin 9.1 g/dL, platelets 67 000/µL, and he had a MELD score of 11.

Colonoscopy revealed large rectal varices. On EUS, a grape-like bunch of rectal varices was seen, which showed sluggish blood flow on Doppler exam. It was decided to treat the varices with embolization coils and glue. A 22-gauge EUS-guided fine needle aspiration (FNA) needle (EchoTip Ultra; Cook Medical, Limerick, Ireland) and embolization coils (MicroNester; Cook Medical, Bjaeverskov, Denmark) were used.

The EUS-FNA needle was used to puncture the feeder vessel. One 10-mm × 7-cm coil was anchored into the wall of the feeder vessel and deployed into the lumen under sonographic guidance (Fig. 1). Another 10-mm × 7-cm embolization coil was similarly deployed in an adjacent feeder vessel. A further medium varix was identified, and an 8-mm × 14-cm embolization coil was deployed, giving a total of three coils deployed in two columns. Endoscopy showed the proximal end of the coil anchored in the rectal mucosa (Fig. 2). Under direct endoscopic view with EUS assistance, 0.8 mL of n-butyl-2-cyanoacrylate glue (Covidien SwiftSet; United Kingdom) was injected into the rectal varix at the site of coil deployment. Doppler examination confirmed a reduction in blood flow after coil placement and glue injection (Video 1).

At 4-week follow-up, our patient reported no further rectal bleeding and his hemoglobin was stable. There were no procedural complications.

Competing interests

None

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Video 1

Video 1: Endoscopic ultrasound-guided hemostasis of rectal varices with coils and glue.

Fig. 1 Endoscopic ultrasound showing deployment of embolization coils (yellow arrow).

Fig. 2 Endoscopy showing the embolization coils anchored in the rectal mucosa.
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