Endoscopic ultrasound-guided hemostasis of rectal varices

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

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

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 di-

rect 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.

Endoscopy_UCTN_Code_TTT_1AQ_2AZ

Competing interests

None

The Authors

Tanima Jana^{*}, Tejal Mistry^{*}, Shashideep Singhal

Department of Internal Medicine, Division of Gastroenterology, Hepatology & Nutrition, Houston Health Sciences Center, Houston, Texas, USA

^{*} Joint first authors

► Video 1

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

Corresponding author

Shashideep Singhal, MD

Department of Internal Medicine, Division of
Gastroenterology, Hepatology & Nutrition,
University of Houston Health Sciences
Center, Houston, TX 77030, USA
Fax: +1-713-500-6699
Phone: +1-713-500-6631
sdsinghal@gmail.com

References

- [1] Al Khalloufi K, Laiyemo AO. Management of rectal varices in portal hypertension. *World J Hepatol* 2015; 7: 2992–2998
- [2] Connor EK, Duran-Castro OL, Attam R. Therapy for recurrent bleeding from rectal varices by EUS-guided sclerosis. *Gastrointest Endosc* 2015; 81: 1280–1281
- [3] Sharma M, Rai P, Bansal R. EUS-assisted evaluation of rectal varices before banding. *Gastroenterol Res Pract* 2013; 2013: 619187
- [4] Weilert F, Shah JN, Marson FP et al. EUS-guided coil and glue for bleeding rectal varix. *Gastrointest Endosc* 2012; 76: 915–916
- [5] Sharma M, Somasundaram A. Massive lower GI bleed from an endoscopically inevident rectal varices: diagnosis and management by EUS (with videos). *Gastrointest Endosc* 2010; 72: 1106–1108

Bibliography

DOI <http://dx.doi.org/10.1055/s-0043-104521>
Endoscopy 2017; 49: E136–E137
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X