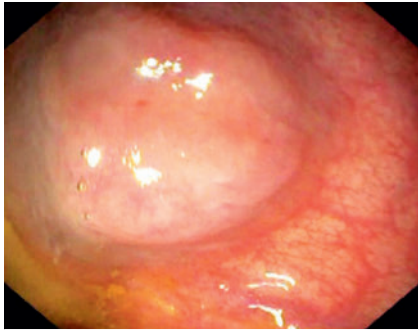


## Rectal cavernous hemangioma: is endoscopic submucosal dissection the new standard of care?

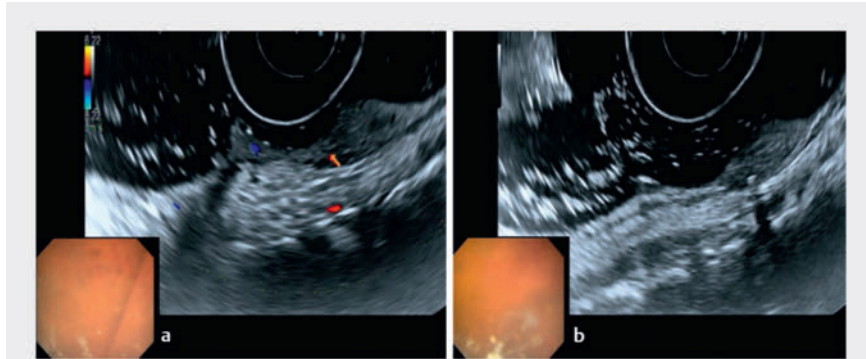
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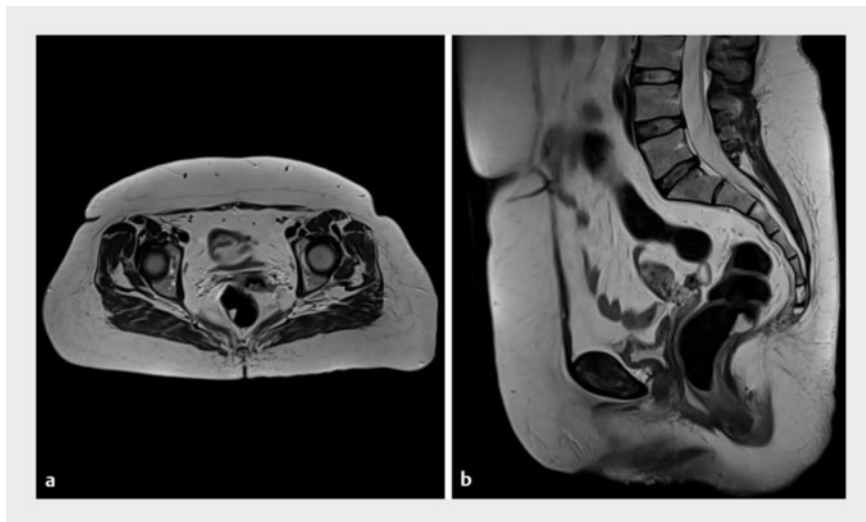
► **Fig. 1** Endoscopic features of the lesion.

Cavernous hemangioma is a benign vascular tumor whose incidence is very low in the gastrointestinal (GI) tract. Usually, it arises from the submucosal vascular plexus. Rectosigmoid is the most frequent location. Anemia, pain, and rectal bleeding are the main symptoms. Endoscopic diagnosis is far from easy: a bluish polypoid lesion, sometimes pedunculated, with superficial vascular congestion is typical. On endoscopic ultrasound (EUS) it appears heterogeneous with hypoechoic and hyperechoic areas, the latter attributable to calcifications. Biopsies should be avoided, as they can cause massive hemorrhage. Sclerotherapy, embolization, and surgery have been the most considered treatment over the years [1]. Endoscopic mucosal resection and endoscopic full-thickness resection have been described, but the best technique should be endoscopic submucosal dissection (ESD) [2, 3].

After performing colonoscopy for hematochezia, a 49-year-old woman was referred to our center. A subepithelial lesion, approximately 18–20 mm, with a bluish rim and superficial congestion, was found in the rectum (► **Fig. 1**). EUS (Olympus, Tokyo, Japan) showed a submucosal, non-homogeneous, predominantly hypoechoic lesion, with anechoic areas and calcification with an acoustic shadow (► **Fig. 2 a, b**). Magnetic



► **Fig. 2** Endoscopic ultrasonographic assessment of the lesion. **a** Submucosal, non-homogeneous, predominantly hypoechoic lesion, with anechoic areas. **b** Calcification with acoustic shadow inside the hemangioma.



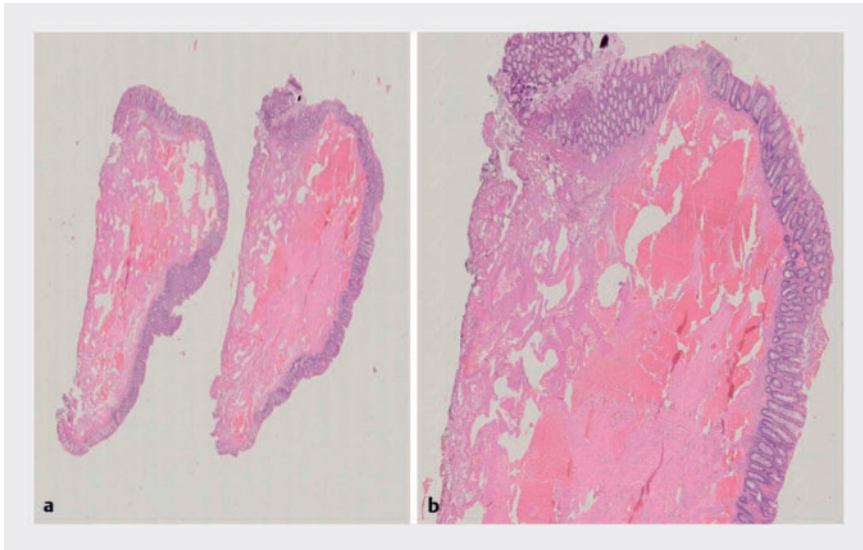
► **Fig. 3** Magnetic resonance appearance of the lesion. **a, b** T2 hyperintense neoplasm in the axial and sagittal plane.

resonance imaging showed a T2 hyperintense neoplasm (► **Fig. 3 a, b**). A submucosal vascular tumor was suspected; thus, ESD was scheduled.

ESD with a HybridKnife (Erbe, Tübingen, Germany) (► **Video 1**) was performed. Given the suspicion of a vascular lesion, the procedure was carried out with great caution to avoid major bleeding. Saline-immersion therapeutic and prophylactic vessel coagulation was performed, as re-

cently described [4]. The patient was discharged asymptomatic the day after. Histological examination confirmed a submucosal cavernous hemangioma with free resection margins (► **Fig. 4 a, b**).

This represents the first case of rectal cavernous hemangioma radically removed with ESD, without clip application or antibiotics use and with the adoption of saline-immersion coagulation. As reported [5], ESD could become the



► **Fig. 4** Histological examination of the resected specimen.

standard of care for these GI lesions, replacing the much more invasive surgery.

Endoscopy\_UCTN\_Code\_TTT\_1AQ\_2AD\_3AD

### Conflict of Interest

AC is a consultant for ERBE; RM is a consultant for ERBE, Fujifilm, 3DMatrix and Boston Scientific; AR is a consultant for Medtronic, ERBE, Fujifilm and Olympus; Other authors nothing to declare.

### The authors

**Francesco Cocomazzi<sup>1</sup>**, **Marco Gentile<sup>1</sup>**, **Lucia Dimitri<sup>2</sup>**, **Antonio Capogreco<sup>3</sup>**, **Roberta Maselli<sup>3,4</sup>**, **Alessandro Repici<sup>3,4</sup>**, **Francesco Perri<sup>1</sup>**

- 1 Division of Gastroenterology and Endoscopy, “Casa Sollievo della Sofferenza” Hospital, IRCCS, San Giovanni Rotondo, Italy
- 2 Pathology Unit, “Casa Sollievo della Sofferenza” Hospital, IRCCS, San Giovanni Rotondo, Italy
- 3 Endoscopy Unit, Humanitas Clinical and Research Center – IRCCS, Rozzano, Italy
- 4 Department of Biomedical Sciences, Humanitas University, Milan, Italy

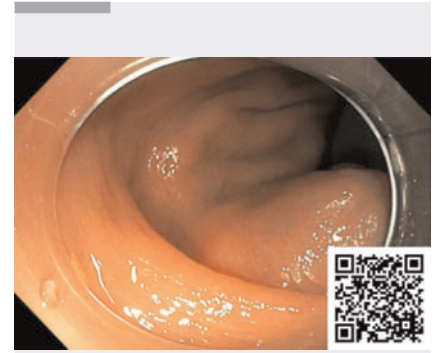
### Corresponding author

**Francesco Cocomazzi, MD**

Division of Gastroenterology and Endoscopy, “Casa Sollievo della Sofferenza” Hospital, IRCCS, Viale Cappuccini, sn, 71013 San Giovanni Rotondo, Italy  
francescococomazzi@gmail.com

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► **Video 1** Endoscopic submucosal dissection of a rectal cavernous hemangioma.

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