

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

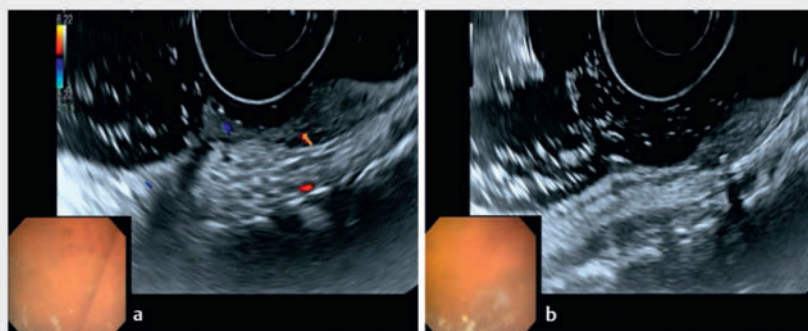
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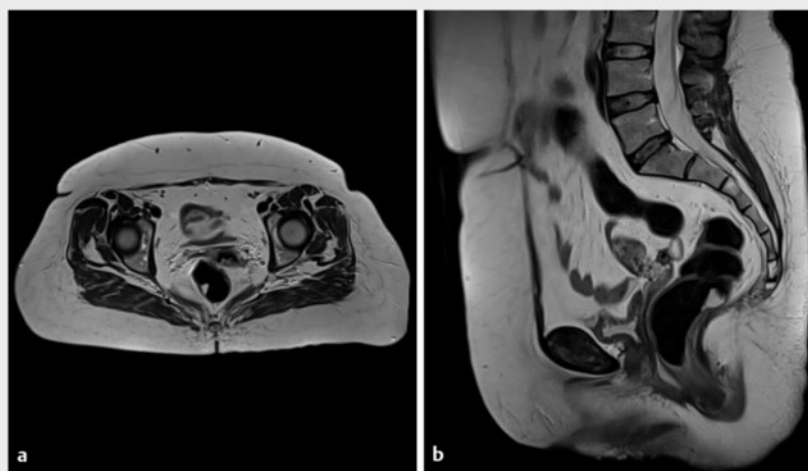
► **Fig. 1** Endoscopic features of the lesion.

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.



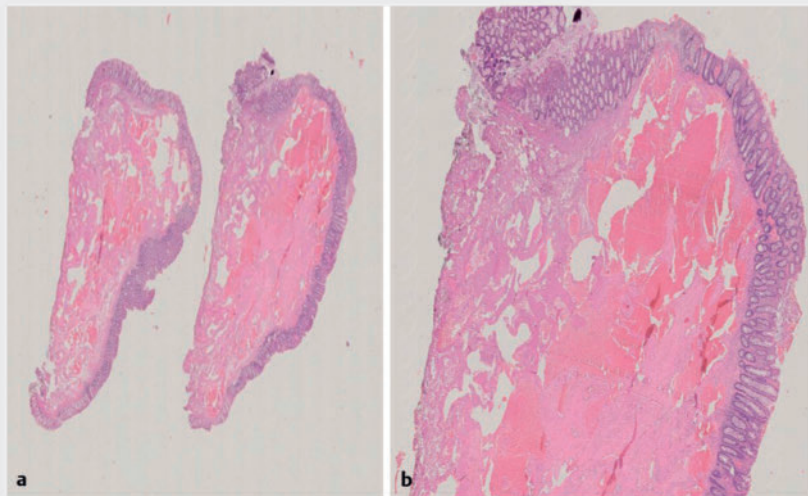
► **Fig. 3** Magnetic resonance appearance of the lesion. **a, b** T2 hyperintense neoplasm in the axial and sagittal plane.

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.

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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.

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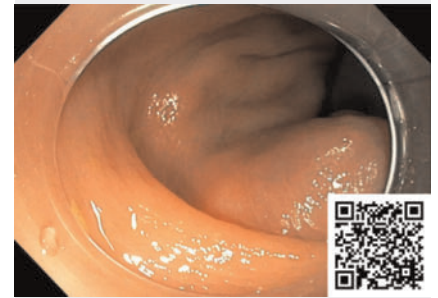
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References

- [1] Veloso N, Silva JD, Pinto-Marques P. A rare cause of rectal bleeding. *Gastroenterology* 2012; 143: e8–e9. doi:10.1053/j.gastro.2012.04.004
- [2] Chen K, Yan M, Liu F. Successful endoscopic submucosal dissection of a large, cavernous hemangioma in the colon. *Endoscopy* 2019; 51: E195–E196. doi:10.1055/a-0875-3519
- [3] Liu W, Zhu Y, Yuan X et al. Successful resection of a cavernous hemangioma involving the rectal muscularis propria layer by endoscopic full-thickness resection. *Endoscopy* 2023; 55: E732–E733. doi:10.1055/a-2081-9202
- [4] Capogreco A, Hassan C, De Blasio F et al. Prophylactic underwater vessel coagulation for submucosal endoscopy. *Gut* 2024; gutjnl-2024–332002. doi:10.1136/gutjnl-2024-332002
- [5] Zhongsheng L, Yan D, Ezzat R et al. Endoscopic submucosal dissection: A safe and effective alternative to surgical intervention for esophageal hemangioma. *Surg Laparosc Endosc Percutan Tech* 2024; 34: 124–128. doi:10.1097/SLE.0000000000001266



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

Bibliography

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