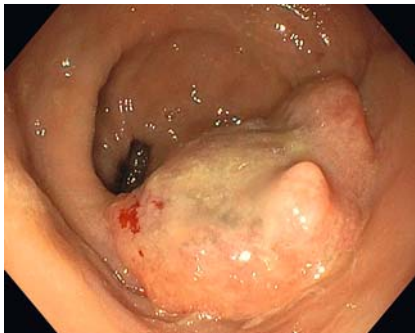
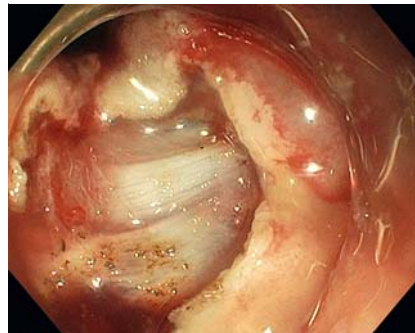


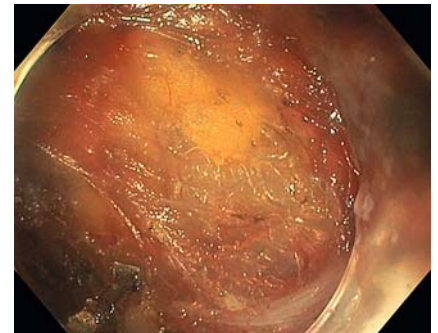
## Salvage endoscopic wide-field full-thickness resection of T2 rectal cancer with endoscopic submucosal dissection instruments, without defect closure



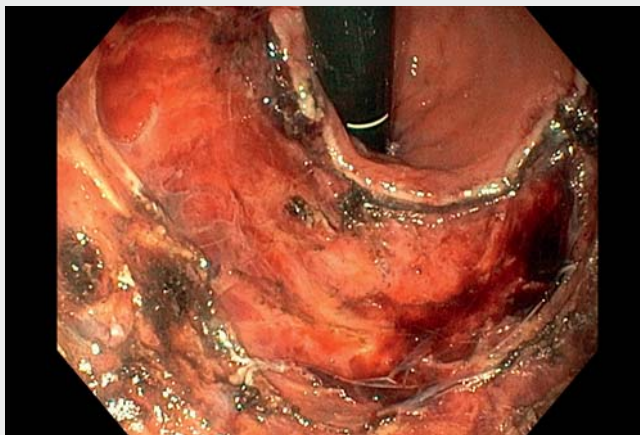
► **Fig. 1** A 4-cm tumor of the lower rectum.



► **Fig. 2** Circumferential mucosal incision.



► **Fig. 3** Circumferential full thickness incision.



► **Video 1** Salvage endoscopic wide-field full-thickness resection of T2 rectal cancer with endoscopic submucosal dissection instruments, without defect closure.



► **Fig. 4** Perirectal space.



► **Fig. 5** Resected specimen.

A 86-year-old woman was referred for recurrent bleeding secondary to a 4-cm cT2N0 cancer of the distal rectum (► **Fig. 1**). Tumor staging was negative for metastasis. She had a history of severe aortic stenosis and atrial fibrillation under anticoagulants, making her a poor candidate for surgical treatment by total mesorectal excision. After a multidisciplinary approach and informed patient consent, we performed a palliative endoscopic resection of the tumor by means of

endoscopic submucosal techniques under propofol sedation (► **Video 1**). After circumferential muscular incision (► **Fig. 2**, ► **Fig. 3**), the specimen was progressively dissected from the perirectal fat using a square tip endoscopic submucosal dissection (ESD) knife (Square-Knife, Endoaccess, Garbsen, Germany) in spray coagulation mode (Effect 3.0, VIO3, ERBE, Tübingen, Germany). Large perirectal vessels were coagulated with hot biopsy forceps. No major bleeding

was encountered. At the end of the procedure, which lasted 80 minutes, the hemi-circumferential wall defect was left open (► Fig. 4, ► Fig. 5), since this approach has been demonstrated to be safe after surgical local resections [1]. The patient received broad spectrum antibiotics and a liquid diet for 1 week. She was hospitalized for 2 days and had an uneventful recovery. Endoscopy 1 month later confirmed complete wound healing and the patient received local radiotherapy. At 2 years of endoscopic and radiologic follow-up, she remains asymptomatic without evidence of local recurrence or distal metastasis on imaging and endoscopy.

In conclusion, we presented an endoscopic salvage resection of a symptomatic T2 rectal cancer in a patient who was a poor candidate for transabdominal surgery. Local excision is an acceptable treatment for T1N0 early rectal cancer, however there is limited data for high-risk T1 and T2 tumors [2, 3]. In a meta-analysis, pT1/pT2 rectal cancers treated with local excision and adjuvant (chemo)radiotherapy were associated with a 14% local recurrence rate and 9% distant recurrence [4]. Although this approach cannot be generalized, we demonstrated the feasibility of endoscopic excision in highly selected cases.

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### Competing interests

The authors declare that they have no conflict of interest.

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### References

- [1] Noura S, Ohue M, Miyoshi N et al. Significance of defect closure following transanal local full-thickness excision of rectal malignant tumors. *Mol Clin Oncol* 2016; 5: 449–454
- [2] Willett CG, Compton CC, Shellito PC et al. Selection factors for local excision or abdominoperineal resection of early-stage rectal cancer. *Cancer* 1994; 73: 2716–2720
- [3] You YN, Baxter NN, Stewart A et al. Is the increasing rate of local excision for stage I rectal cancer in the United States justified? A nationwide cohort study from the National Cancer Database. *Ann Surg* 2007; 245: 726–733
- [4] Borstlap WA, Coeymans TJ, Tanis PJ et al. Meta-analysis of oncological outcomes after local excision of pT1–2 rectal cancer requiring adjuvant (chemo)radiotherapy or completion surgery. *Br J Surg* 2016; 103: 1105–1116

### Bibliography

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