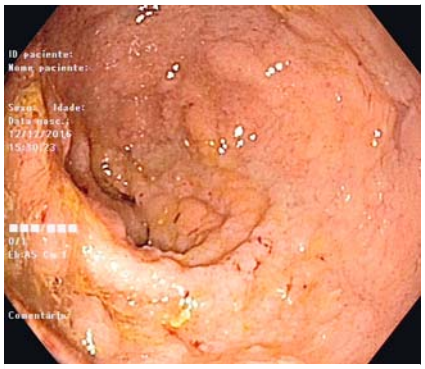
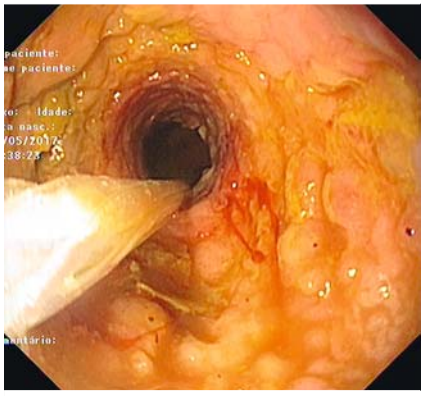
Circumferential rectal laterally spreading tumor resected by endoscopic submucosal dissection in a Western center

▶ **Fig. 1** A 15 cm circumferential rectal laterally spreading tumor, mixed granular type.



▶ **Fig. 2** Endoscopic submucosal dissection of the rectal laterally spreading tumor.



▶ **Fig. 3** Resected tumor, corresponding to the entire circumferential rectal mucosa.

A 78-year-old patient without relevant past medical history underwent colonoscopy for chronic diarrhea. Examination identified a laterally spreading tumor (LST), mixed-granular-type (nodules up to 1 cm) in the rectum, from the pectin line to the rectosigmoid transition. The LST covered 100 % of the circumference of this segment (▶ **Fig. 1**). Endoscopic evaluation was compatible with an adenomatous lesion with preserved pit pattern (Kudo IIIL/IV classification), without unequivocal endoscopic suspicion of invasive lesion (NICE 2; JNET 2B). After multidisciplinary evaluation, endoscopic resection by endoscopic submucosal dissection (ESD) was decided.

The procedure was performed with the patient under general anesthesia. A gastroscope (GIF-HQ190; Olympus, Tokyo, Japan) and carbon dioxide insufflation were used. The lesion was gradually elevated with a colloid solution (Voluven [Fresenius Kabi Norge AS, Halden, Norway] + indigo carmine + adrenaline), and the excision was performed by ESD using the FlushKnife (Fujifilm Corp., Tokyo, Japan) and the IT Knife nano (Olympus) (▶ **Fig. 2**). En bloc resection was achieved, obtaining a circumferential specimen with a length of 15 cm, corresponding to the entire rectal mucosa (▶ **Fig. 3**, ▶ **Video 1**). The procedure time was 420 minutes. Antimicrobial prophylaxis with a single dose of ceftriaxone (2 g) was given. There were no immediate complications and the patient was discharged 24 hours after the procedure. Histological examination revealed a tubulovillous adenoma with high grade dysplasia.

▶ **Fig. 4** Endoscopic balloon dilation at the endoscopic submucosal dissection site.

Although the patient remained asymptomatic, endoscopic evaluation after 2 months revealed stenosis at the ESD site. Balloon dilation up to 15 mm (diameter) was performed in a single session (▶ **Fig. 4**).

ESD is an organ-sparing endoscopic technique that allows en bloc resection of superficial gastrointestinal lesions regardless of their size, optimizing the histological evaluation [1]. This is particularly important in the rectum because of the high morbidity associated with the alternative surgical approaches [2]. Although described in Asian case reports [3, 4], to our knowledge this is the first report showing endoscopic treatment by ESD of a giant circumferential colorectal LST in a Western center.

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Competing interests

None

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Video 1 Endoscopic submucosal dissection for the treatment of a 15 cm circumferential rectal laterally spreading tumor.

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