The small bowel is the third most common site of neuroendocrine tumors (NETs) after the lung and rectum, and NETs represent the most frequent malignancy of the small bowel [1]. Small bowel NETs are usually managed with surgical resection [2]. However, in some situations surgery may be too difficult or not feasible.

Underwater endoscopic resection was initially described for the treatment of colorectal polyps and flat lesions [3], and later for resection of the rectum [4] and duodenum NETs [5] with good results. However, there is no report of underwater endoscopic resection for small bowel NETs. We describe, for the first time, a case of an ileal NET resected with an underwater endoscopic technique (▶ Video 1).

A 64-year-old man who had previously undergone a total colectomy with ileorectal anastomosis (▶ Fig. 1) was referred for endoscopic treatment of a low-grade NET located at the distal ileum. The endoscopic assessment revealed an elevated, yellowish, 10-mm subepithelial lesion consistent with an NET, located 15 cm proximal to the ileorectal anastomosis (▶ Fig. 2). Due to the low risk of malignancy and the difficulty involved in a possible surgical approach, the surgical team decided for a less invasive treatment by endoscopic resection.

Under endoscopic visualization, water was infused until the ileum lumen was completely filled. A 13-mm snare and an endocut mode were used for the resection (▶ Fig. 3). After resection, endoscopic examination revealed no signs of perforation or residual lesion (▶ Fig. 4). Histologic analysis of the specimen revealed a well-differentiated grade 1 NET invading the superficial submucosal layer with tumor-free, resected deep and lateral margins and without angiolymphatic or perineural invasion.
Underwater endoscopic resection can be a new therapeutic strategy for a low-grade ileal neuroendocrine tumor and was feasible in this case.

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Competing interests

The authors declare that they have no conflict of interest.

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