Underwater endoscopic resection of a neuroendocrine rectal tumor

The endoscopic resection of rectal neuroendocrine tumors (NETs) results in good long-term outcomes [1]. Many techniques for the endoscopic resection of rectal NETs have been described, including polypectomy, endoscopic mucosal resection (EMR), and recently EMR with band ligation [2], endoscopic submucosal dissection [3], and even transanal endoscopic microsurgery [4]. Underwater endoscopic resection is a simple and inexpensive new technique that has been used for the treatment of polyps and flat lesions [5]. We present a case of rectal NET resected with an underwater technique (Video 1).

A 51-year-old woman was referred for the endoscopic treatment of a distal rectal NET. Colonoscopy revealed a yellowish, hardened, 10-mm lesion with a subepithelial aspect, compatible with NET (Fig. 1). Water was infused until the rectum lumen was completely filled (Fig. 2). An opened snare (SnareMaster; Olympus, Tokyo, Japan) was pushed against the rectal wall to capture a safe margin of normal mucosa (Fig. 3). Forced coagulation was used for the initial cutting, and endocut mode (ERBE Elektro-, Tübingen, Germany) was then used to complete the resection.

In the post-procedural examination, no sign of perforation or residual lesion was observed (Fig. 4). Histologic examination of the specimen revealed a well-differentiated grade 1 NET invading the deep submucosal layer with tumor-free resection margins and without angiolymphatic or perineural invasion.

Underwater endoscopic resection of rectal NET can be a new treatment option and was feasible in this case. Case series are needed to confirm the efficacy of this technique.

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