Underwater endoscopic resection of a neuroendocrine rectal tumor

Fig. 1 Neuroendocrine rectal tumor in a 51-year-old woman.

Fig. 2 Underwater appearance of the same lesion.

Fig. 3 Underwater resection with a snare.

Fig. 4 Appearance after resection, with no residual lesion.

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 subepi-

thelial 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 Elektromedizin, 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.

Video 1

Underwater endoscopic resection of a neuroendocrine rectal tumor.

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.

Endoscopy_UCTN_Code_TTT_1AT_2AZ

Competing interests: None

Fabio Shiguehissa Kawaguti¹, Joel Fernandez de Oliveira², Bruno da Costa Martins¹, Maurício P. Sorbello¹, Felipe Alves Retes¹, Ulysses Ribeiro³, Fauze Maluf-Filho¹

¹ Division of Endoscopy, Cancer Institute of University of São Paulo Medical School, São Paulo, Brazil

² Endoscopy Unit, Department of Gastroenterology, University of São Paulo Medical School, São Paulo, Brazil

³ Division of Surgery, Cancer Institute of University of São Paulo Medical School, São Paulo, Brazil

References

- 1 Sekiguchi M, Sekine S, Sakamoto T et al. Excellent prognosis following endoscopic resection of patients with rectal neuroendocrine tumors despite the frequent presence of lymphovascular invasion. *J Gastroenterol* May 5. [Epub ahead of print]. DOI: 10.1007/s00535-015-1079-7
- 2 Mashimo Y, Matsuda T, Uraoka T et al. Endoscopic submucosal resection with a ligation device is an effective and safe treatment for carcinoid tumors in the lower rectum. *J Gastroenterol Hepatol* 2008; 23: 218–221

- 3 Lee D, Jeon S, Park S et al. The feasibility of endoscopic submucosal dissection for rectal carcinoid tumors: comparison with endoscopic mucosal resection. *Endoscopy* 2010; 42: 647–651
- 4 Kumar AS, Sidani SM, Kolli K et al. Transanal endoscopic microsurgery for rectal carcinoids: the largest reported United States experience. *Colorectal Dis* 2012; 14: 562–566
- 5 Binmoeller KF, Weilert F, Shah J et al. "Underwater" EMR without submucosal injection for large sessile colorectal polyps (with video). *Gastrointest Endosc* 2012; 75: 1086–1091

Bibliography

DOI <http://dx.doi.org/10.1055/s-0034-1393224>
Endoscopy 2015; 47: E513–E514
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

Fabio S. Kawaguti, MD

Instituto do Cancer do Estado de São Paulo
Divisão de Endoscopia – 2º andar
Av. Dr. Arnaldo 251
São Paulo/SP
CEP 01246-000
Brazil
Fax: +55-11-3069-7579
shiguehiss@yahoo.com.br