

Underwater endoscopic mucosal resection for a tumor located in the free jejunal graft

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Endoscopic resection for a tumor located in the free jejunum after surgery is challenging because of the narrow and tortuous lumen. Theoretically, underwater conditions improve the maneuverability of the endoscope and the visibility of the resection site [1,2]. Thus, we applied underwater endoscopic mucosal resection (UEMR) for a tumor located in the free jejunum.

A woman in her 70s underwent esophagectomy for esophageal cancer and subsequent surveillance esophagogastroduodenoscopy, during which a 15-mm pedunculated tumor was detected in the free jejunum. However, approaching the tumor while maintaining good visualization was difficult, because there was a moderate stricture at the pharynx–jejunum anastomosis and the tumor was located in the upper part of the free jejunum. Thus, we performed UEMR. Before the procedure, the patient was kept in a slight head-up position to avoid aspiration. After air deflation in the free jejunum, the lumen was filled with physiological saline. In this underwater condition, we could easily approach the tumor and maintain a clear visual field. The tumor floated as after submucosal injection; thus, it was easily captured by a snare (Captivator II; Boston Scientific, Marlborough, MA, USA) and removed *en bloc* with electrical current. After resection, clip closure was performed in the underwater condition [3]. Histological examination revealed intramucosal cancer without lymphovascular invasion. No adverse events occurred, and no recurrence was shown at the 3-month follow up (Fig. 1A–D, Fig. 2A–B).

UEMR improved the maneuverability of the endoscope and was safely applicable to the lesion in the free jejunum described here.

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Conflict of Interest: None

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Received 29 March 2019; accepted 8 April 2019; published online 8 May 2019

DOI: <https://doi.org/10.20524/aog.2019.0383>

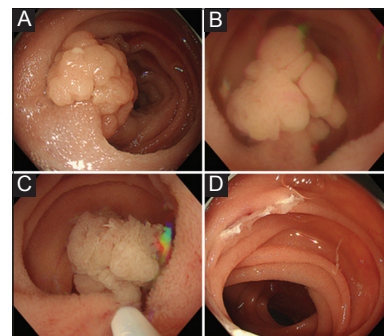


Figure 1 Underwater endoscopic mucosal resection for a tumor in the free jejunum. (A) A 15-mm lesion was detected in the free jejunum. (B) The lesion floated up in the underwater conditions. (C) The lesion was easily captured by a polypectomy snare. (D) The lesion was completely removed by underwater endoscopic resection without bleeding

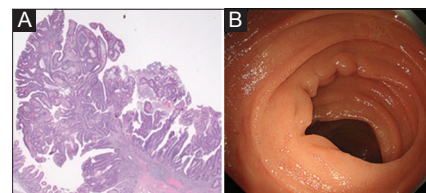


Figure 2 Histopathological examination and follow-up endoscopy. (A) Histopathological examination of the tumor revealed intramucosal cancer with an adenoma component (hematoxylin and eosin stain, $\times 10$). (B) There was no recurrence 3 months after resection

Acknowledgment

We thank Angela Morben, DVM, ELS, from Edanz Group (www.edanzediting.com/ac), for editing a draft of this manuscript.

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