Two-stage cap-assisted endoscopic mucosal resection and papillectomy for duodenal papillary tumors with lateral growth



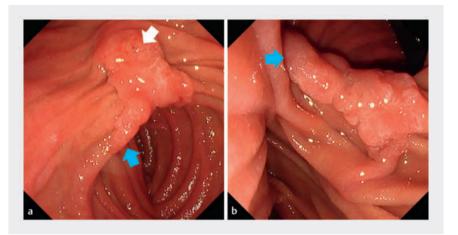


Fig.1 a, **b** Duodenoscopy showing the ampullary side (**a**) and anal side (**b**) of lesion with lateral extension (blue arrow). The orifice is indicated by the white arrow.

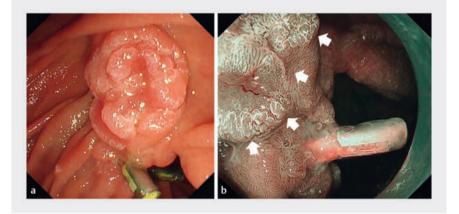


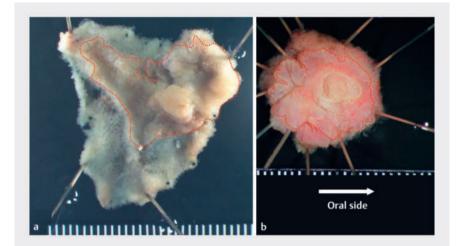
Fig.2 a Residual lesions observed using a side scope. **b** Margin of the anal side of the residual lesion (white arrow) and previously placed clip.

Endoscopic papillectomy is indicated for the treatment of duodenal papillary adenoma [1, 2]. However, en bloc resection using a snare may be challenging in cases with lateral extension of tumor. For lesions that are difficult to remove en bloc with papillectomy alone, resection of two parts of the lesion with staggered timing is effective, without requiring submucosal dissection [3]. A man in his fifties was referred to our hospital following a medical examination. Duodenoscopy revealed a flat lesion arising from the papilla and extending toward the anus (▶ Fig. 1). A diagnosis of ampullary adenoma was made. The use of a snare was considered to increase the risk of residual peripheral lesions. Consequently, a strategy was devised to remove the lesion in two parts: the anal side and the ampullary side. First, we excised the anal side of the lesion using cap-assisted endoscopic mucosal resection [4]. Then, we inserted an endoscope (GIF-Q260]; Olympus, Tokyo, Japan) with a disposable hood (D-206-05; Olympus) (▶ Video 1). Fol-



▶ Video 1 The ampullary lesion was resected in two parts. First, the anal side of the lesion was excised using cap-assisted endoscopic mucosal resection (EMR-C). After 8 weeks, endoscopic papillectomy (EP) was performed to remove the residual tumor.

lowing administration of physiological saline under the lesion, a 25-mm snare was set in the claw of the hood, and the anal side of the lesion was suctioned, grasped with the snare, and excised using the ENDO CUT Q mode (VAIO2; Erbe, Tübingen, Germany). Prior to resection, several trial suctions were performed to test the grip accuracy. After 8 weeks, the ulcer had scarred, and endoscopic papillectomy was performed for the residual tumor (> Fig. 2). Using a TJF-Q290V endoscope (Olympus, Tokyo, Japan) in the ENDO CUT Q mode, the residual tumor was excised by applying a snare from the oral side to the anal side. The treatment was completed by placing plastic stents in the bile and pancreatic ducts and applying clip sutures. The histopathological diagnosis was well-differentiated adenocarcinoma localized to the mucosa. Reconstruction of the lesion removed using cap-assisted endoscopic mucosal resection and endoscopic papillectomy revealed no residual tumor (> Fig. 3). No adverse events of the procedures were



▶ Fig. 3 a, b Loupe images of specimens resected during (a) cap-assisted endoscopic mucosal resection (22×16 mm) and (b) endoscopic papillectomy (14×11 mm). The red dashed lines indicate the margin of the lesion.

observed. At 1 year, endoscopy revealed no tumor recurrence.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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References

- Wang Y, Khizar H, Zhou H et al. Endoscopic treatment for early duodenal papillary carcinoma: long-term outcomes. J Gastroenterol Hepatol. doi:10.1111/jgh.16546
- [2] Maselli R, De Sire R, Fugazza A et al. Updates on the management of ampullary neoplastic lesions. Diagnostics 2023; 13: 3138. doi:10.3390/diagnostics13193138
- [3] Takahara N, Tsuji Y, Nakai Y et al. A novel technique of endoscopic papillectomy with hybrid endoscopic submucosal dissection for ampullary tumors: a proof-of-concept study (with video). J Clin Med 2020; 9: 2671
- [4] Jamil LH, Kashani A, Peter N et al. Safety and efficacy of cap-assisted EMR for sporadic nonampullary duodenal adenomas. Gastrointest Endosc 2017; 86: 666–672. doi:10.1016/j.gie.2017.02.023

Bibliography

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