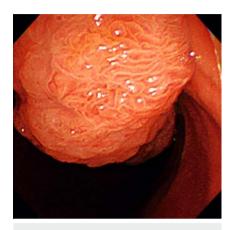
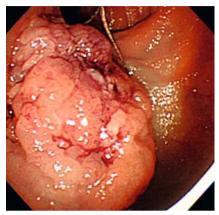
Successful endoscopic papillectomy with intrapancreatic ductal radiofrequency ablation for ampulla cancer in surgically altered anatomy

Surgical resection of ampullary neoplasms in patients with surgically altered anatomy is challenging [1]. The recent development of intraductal radiofrequency ablation (RFA) devices and endoscopic techniques enabled endoscopic treatments to be used as viable alternatives for ampullary neoplasm in poor surgical candidates [2–4]. We describe a case of endoscopic papillectomy with intraductal RFA for an ampullary tumor in a patient with Billroth II anastomosis.

A 75-year-old woman was referred for a polypoid mass on the ampulla of Vater. She had undergone Billroth II gastrectomy for gastric cancer 28 years before and bile duct resection with right lobectomy for cholangiocarcinoma 3 years before. We were able to approach the 4.5-cm polypoid mass with conventional duodenoscopy (JF-260V; Olympus Corp., Tokyo, Japan) (▶ Fig. 1). Biopsy revealed a tubulovillous adenoma. An endoscopic piecemeal resection was performed considering the size of the mass (▶Fig. 2). The pathology report revealed a small, multifocal portion of a well-differentiated papillary adenocarcinoma in the background of the tubulovillous adenoma involving the resection margin. We thus performed repetitive endoscopic resection with argon plasma coagulation (APC) for the small remnant adenoma. After 1 month, the endoscopy revealed a remnant tumor at the pancreatic duct orifice. We then performed intrapancreatic ductal RFA for intraductal extension. After pancreatographic evaluation, an RFA catheter (ELRA; Taewoong Medical, Gimpo-si, South Korea) was introduced by a guidewire. RFA (70W, target temperature 80°C) was applied for 30 seconds under fluoroscopic quidance using a VIVA generator (Taewoong Medical) (► Fig. 3, ► Video 1). After intrapancreatic ductal RFA, we inserted a plastic stent in the pancreatic duct with additional APC around the pancreatic duct orifice.

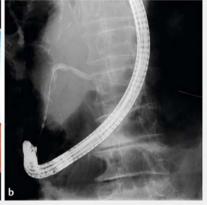


► **Fig. 1** Endoscopic view of the 4.5-cm polypoid ampullary tumor.



► Fig. 2 Endoscopic piecemeal papillectomy for the ampullary tumor.





▶ Fig. 3 a Endoscopic view of the radiofrequency ablation (RFA) catheter ablating the surrounding mucosa and intraductal lesion. b Fluoroscopic view of the RFA catheter located in the proximal pancreatic duct.

The patient was discharged without complications. No remnant tumor was found at the 7-month follow-up (▶ Fig. 4). Endoscopic papillectomy with intrapancreatic ductal RFA may be performed for ampullary neoplasm with intraductal extension in patients with surgically altered anatomy.

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Competing interests

The authors declare that they have no conflict of interest.







► Fig. 4 Endoscopic view at follow-up.

▶ Video 1 Endoscopic papillectomy and intrapancreatic ductal radiofrequency ablation. The large ampullary tumor was successfully managed with repetitive endoscopic resection and intrapancreatic ductal radiofrequency ablation.

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