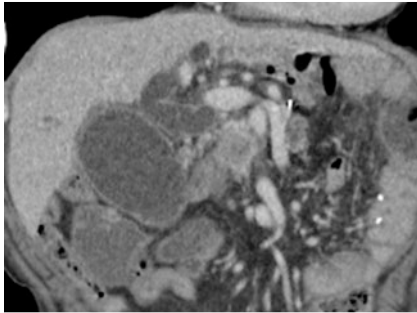


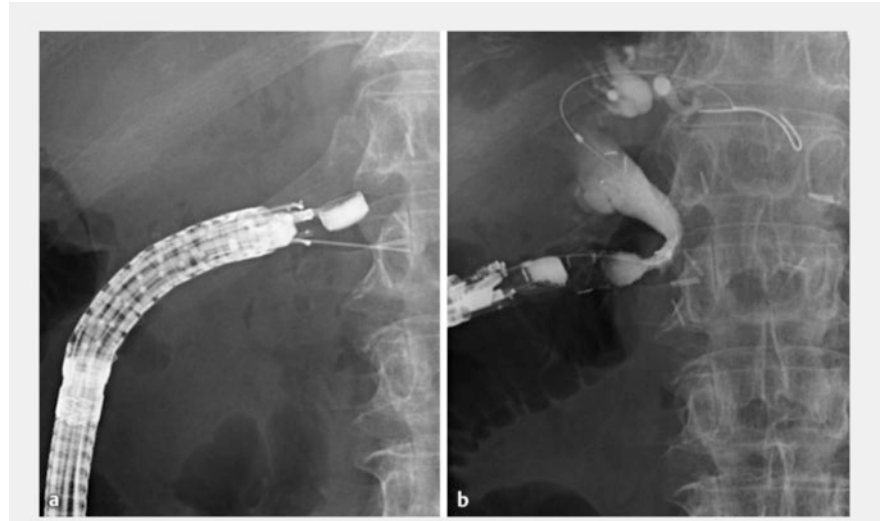
## Single-session endoscopic ultrasound-guided tissue acquisition followed by choledochoduodenostomy in a patient with Roux-en-Y reconstruction



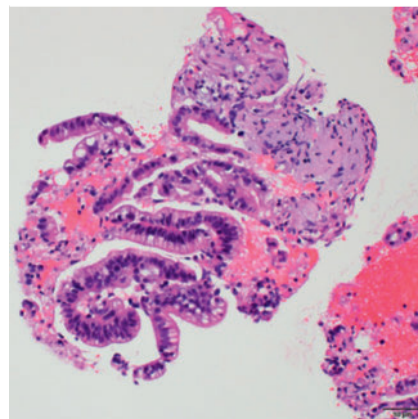
► **Fig. 1** Contrast-enhanced computed tomography (CT) image in coronal section. CT reveals a hypodense mass with a hyperdense rim around the pancreatic head.

Endoscopic ultrasound-guided tissue acquisition (EUS-TA) through the afferent limb of a Roux-en-Y reconstruction is possible but challenging [1,2]. In reconstructed patients with subsequent distal malignant biliary obstruction, EUS-TA with endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) potentially achieves both pathological diagnosis and biliary drainage in a single session.

A 78-year-old man, with a history of total gastrectomy 8 years previously for poorly differentiated gastric adenocarcinoma, was admitted with distal malignant biliary obstruction and acute cholangitis possibly due to post-gastrectomy lymph node recurrence or stage III pancreatic cancer (► **Fig. 1**). Single-session EUS-TA followed by EUS-CDS was performed for pathological diagnosis and biliary drainage (► **Video 1**). First, we inserted a balloon-assisted endoscope (EI-580BT; Fujifilm, Tokyo, Japan) into the end of the afferent limb. Second, we placed a 0.035-inch ultra-stiff guidewire (Wrangler SUS, Piolax, Yokohama, Japan) through the surgically altered intestine for echoendoscope navigation. Third, an oblique-viewing echoendoscope (EG-580UT, Fujifilm) was



► **Fig. 2** Endoscopic ultrasound-guided tissue acquisition followed by choledochoduodenostomy via the afferent limb. **a** Endoscopic ultrasound-guided tissue acquisition is performed using a 22-gauge Franseen needle. **b** Following endoscopic ultrasound-guided choledochoduodenostomy, a covered self-expandable metallic stent is deployed.



► **Fig. 3** Specimen obtained by endoscopic ultrasound-guided tissue acquisition. The specimen shows well-differentiated adenocarcinoma with pancreatic stroma and no involvement of lymph node structures, distinguishing it from lymph node metastasis of poorly differentiated gastric adenocarcinoma.



► **Video 1** Single-session endoscopic ultrasound-guided tissue acquisition followed by choledochoduodenostomy in a patient with Roux-en-Y reconstruction.

advanced to around the pancreatic head using the over-the-guidewire technique [2]. Fourth, EUS-TA was performed on

the mass using a 22-gauge Franseen needle (► **Fig. 2a**). Finally, we attempted EUS-CDS as follows: biliary puncture using a 19-gauge lancet needle, 0.025-inch guidewire placement, elec-

trocautery anastomosis dilation, and deployment of a covered self-expandable metallic stent, 10 mm in diameter and 8 cm in length (► **Fig. 2b**). The whole clinical course was uneventful. The patient recovered from acute cholangitis and received appropriate chemotherapy following a definitive diagnosis of well-differentiated pancreatic adenocarcinoma, ruling out lymph node recurrence from the previous gastric cancer (► **Fig. 3**).


In patients with Roux-en-Y reconstruction and distal malignant biliary obstruction, tissue acquisition, and biliary drainage via the endoscopic ultrasound-guided hepaticogastric route is an alternative [3, 4]. However, intraductal biliary tissue acquisition has an inferior diagnostic yield compared with that of EUS-TA [5]. In this case, EUS-TA combined with EUS-CDS through the afferent limb facilitated simultaneous pathological diagnosis and drainage.

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### Conflict of Interest

The authors declare that they have no conflict of interest.

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### References

- [1] Brozzi L, Petrone MC, Poley JW et al. Outcomes of biliopancreatic EUS in patients with surgically altered upper gastrointestinal anatomy: a multicenter study. *Endosc Int Open* 2020; 8: E869–E876
- [2] Ban T, Kawakami H, Kubota Y et al. Endoscopic ultrasonography-guided fine-needle biopsy from the pancreatic head of a patient with Roux-en-Y reconstruction. *Endoscopy* 2018; 50: E202–E204
- [3] van der Merwe SW, van Wanrooij RL, Bronswijk M et al. Therapeutic endoscopic ultrasound: European Society of Gastrointestinal Endoscopy (ESGE) Guideline. *Endoscopy* 2022; 54: 185–205. doi:10.1055/a-1717-1391
- [4] Yane K, Morita K, Sumiyoshi T et al. Simple transmural antegrade biopsy method for indeterminate biliary stricture using endoscopic sheath. *Endosc Int Open* 2022; 10: E1309–E1310. doi:10.1055/a-1793-9454
- [5] De Moura DTH, Moura EGH, Bernardo WM et al. Endoscopic retrograde cholangiopancreatography versus endoscopic ultrasound for tissue diagnosis of malignant biliary stricture: systematic review and meta-analysis. *Endosc Ultrasound* 2018; 7: 10–19. doi:10.4103/2303-9027.193597

### Bibliography

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