Forward-viewing echoendoscope aids tissue acquisition via the afferent limb after pancreaticoduodenectomy

Endoscopic ultrasound-guided tissue acquisition (EUS-TA), commonly performed with an oblique-viewing echoendoscope, can be difficult in patients with surgically altered anatomy [1]. Recently, EUS-TA using an oblique-viewing echoendoscope inserted over a guidewire into the afferent limb has been reported [2], but there is the risk of perforation. Although forward-viewing echoendoscopes can be safely inserted into the distal intestinal tract, there are few reports about EUS-TA via the afferent limb using them [3,4]. Here, we describe a patient with surgically altered anatomy who underwent EUS-TA using a forward-viewing echoendoscope for recurrent cancer of the distal bile duct.

The 85-year-old man had previously undergone pancreaticoduodenectomy with modified Child’s reconstruction for distal bile duct cancer. Two years later, computed tomography revealed a 30-mm hypovascular mass (arrow) behind the portal vein (Fig. 1), suggestive of bile duct cancer recurrence. We attempted EUS-TA with an oblique-viewing echoendoscope was technically unfeasible due to positional difficulty. Hence, a decision was made to perform EUS-TA via the afferent limb using a forward-viewing echoendoscope instead.

Endoscopic ultrasound-guided tissue acquisition (EUS-TA) using a forward-viewing echoendoscope inserted into the afferent limb has been reported [2], but there is the risk of perforation. Although forward-viewing echoendoscopes can be safely inserted into the distal intestinal tract, there are few reports about EUS-TA via the afferent limb using them [3,4]. Here, we describe a patient with surgically altered anatomy who underwent EUS-TA using a forward-viewing echoendoscope for recurrent cancer of the distal bile duct.

The 85-year-old man had previously undergone pancreaticoduodenectomy with modified Child’s reconstruction for distal bile duct cancer. Two years later, computed tomography revealed a 30-mm intra-abdominal mass behind the portal vein (Fig. 1), suggestive of bile duct cancer recurrence. We attempted EUS-TA using a transgastric approach. However, the mass puncture could not be performed because of the intervening portal vein (Fig. 2). Therefore, a decision was made to perform EUS-TA via the afferent limb using a forward-viewing echoendoscope (TGF-UC260J; Olympus, Tokyo, Japan).
Japan) instead (▶ Fig. 3 a, b). The colonoscope was inserted into the afferent limb, followed by a guidewire, and the colonoscope was removed. Next, the echoendoscope was inserted into the afferent limb over the guidewire under fluoroscopic guidance and endoscopic vision (▶ Fig. 3 c). EUS successfully showed a hypoechoic mass adjacent to the portal vein (▶ Fig. 4 a, b). EUS-TA was performed without complications using a 22-gauge Franseen needle (▶ Fig. 4 c, d, ▶ Video 1). The histopathological diagnosis was adenocarcinoma, consistent with bile duct cancer recurrence (▶ Fig. 5).

In cases of hilar lesions after pancreaticoduodenectomy with Child’s reconstruction, EUS-TA using an oblique-viewing echoendoscope is often difficult because the lesion is far away since it is approached transgastrically. Use of a forward-viewing echoendoscope may enable safe insertion into the afferent limb and EUS-TA with a short puncture distance [5].

Endoscopy_UCTN_Code_TTT_1AS_2AD

Funding Information

This work was supported in part by The National Cancer Center Research and Development Fund.

2022-A-16

Conflict of Interest

The authors declare that they have no conflict of interest.

The authors

Soma Fukuda1, Susumu Hijioka1, Yoshikuni Nagashio1, Yuta Maruki2, Mark Chatto3,4, Yutaka Saito2, Takuji Okusaka1

1 Department of Hepatobiliary and Pancreatic Oncology, National Cancer Center Japan, Tokyo, Japan
2 Department of Medicine, Makati Medical Center, Manila, Philippines
3 Endoscopy Division, National Cancer Center Hospital, Tokyo, Japan

Corresponding author

Susumu Hijioka, MD
National Cancer Center Japan, Department of Hepatobiliary and Pancreatic Oncology, 5-1-1, Tsukiji, Chuo-ku, Tokyo, 104-0045, Japan
shijioka@ncc.go.jp

References


Bibliography

Endoscopy 2024; 56: E366–E368
DOI 10.1055/a-2302-9657
ISSN 0013-726X
© 2024. The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited. (https://creativecommons.org/licenses/by/4.0/)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

E-Videos is an open access online section of the journal Endoscopy, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high-quality video and are published with a Creative Commons CC-BY license. Endoscopy E-Videos qualify for HINARI discounts and waivers and eligibility is automatically checked during the submission process. We grant 100% waivers to articles whose corresponding authors are based in Group A countries and 50% waivers to those who are based in Group B countries as classified by Research4Life (see: https://www.research4life.org/access/eligibility/).

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos