

Acute pancreatitis-like bile leakage around the portal vein system after endoscopic ultrasound-guided choledochoduodenostomy



Fig. 1 Radiograph showing the endoscopic ultrasonography-guided choledochoduodenostomy in a 72-year-old man with locally advanced cancer of the pancreatic head and obstructive jaundice.



Fig. 3 Endoscopic image showing no dislocation of the self-expandable metallic stent at the duodenal bulb.

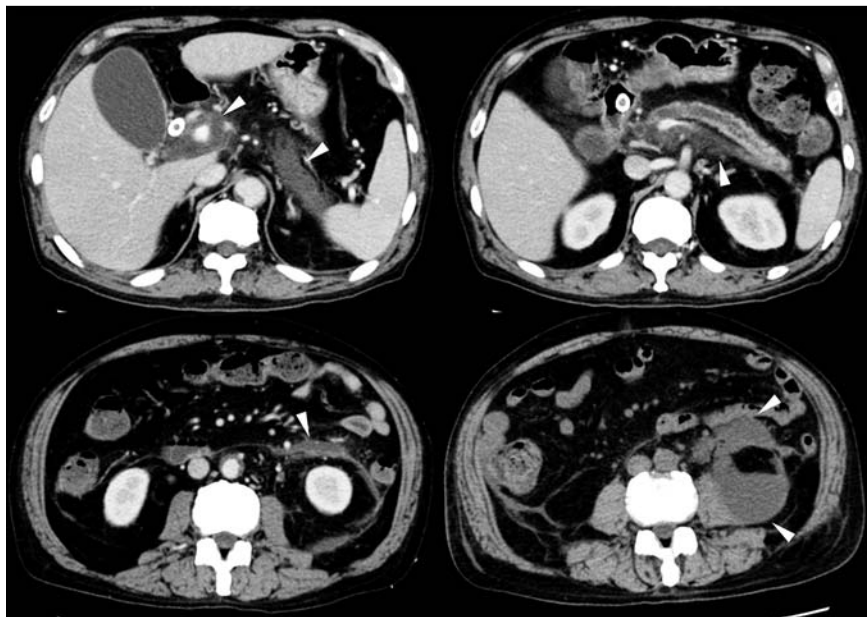


Fig. 2 Radiographs showing an acute pancreatitis-like low-density area around the portal vein system and extending to the perirenal space (arrowheads).

The complication rate of endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) has been reported to be from 13.6% to 16% [1,2]. We present a rare case of acute pancreatitis-like bile leakage around the portal vein system after EUS-CDS for malignant obstruction of the distal bile duct.

A 72-year-old man with locally advanced cancer of the pancreatic head and obstructive jaundice was referred to our hospital. We successfully performed EUS-CDS with a partially covered self-expandable metallic stent (SEMS) (WallFlex, 10×60mm; Boston Scientific Japan, Tokyo, Japan); there were no perioperative com-

plications (Fig. 1, Video 1). However, 7 days later, a high fever developed. Abdominal computed tomography revealed an acute pancreatitis-like area of low density around the portal vein system that extended to the perirenal space (Fig. 2). Esophagogastroduodenoscopy showed no dislocation of the SEMS (Fig. 3). Laboratory data revealed no elevation of the pancreatic enzymes; the amylase level was 8U/L (normal range 50–159) and the lipase level was 37U/L (normal range 13–49U/L), suggesting that the bile leakage was occurring along the SEMS. The fever resolved in 7 days with antibiotic treatment. However, on day 25 after the procedure, the high fever suddenly recurred.

Abdominal computed tomography showed exacerbation of the abscess at the ventral aspect of the stomach and in the perirenal space. Therefore, we performed EUS-guided drainage with a dedicated, fully covered SEMS (Nagi stent, 1.6×3 cm; Taewoong Medical, Seoul, South Korea). After 5 days, direct endoscopic necrosectomy (Fig. 4a, Video 1) and single-transluminal-gateway transcystic multiple drainages were performed (Fig. 4b, Video 1). The abscess was also drained percutaneously (Fig. 5). After complete resolution of the abscess, the SEMS and drainage catheters were removed. Afterward, the patient received chemotherapy. Complications of EUS-CDS, such as pneumoperitoneum and bile leakage, have been reported [1,2]. The use of a covered

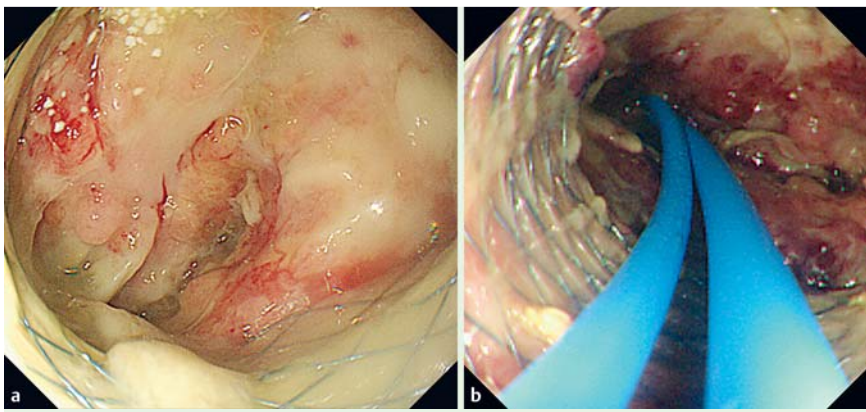


Fig. 4 Endoscopic images. **a** Necrotic tissue and pus after endoscopic ultrasonography-guided drainage with a dedicated, fully covered self-expandable metallic stent. **b** Single-transluminal-gateway transcystic multiple drainages.

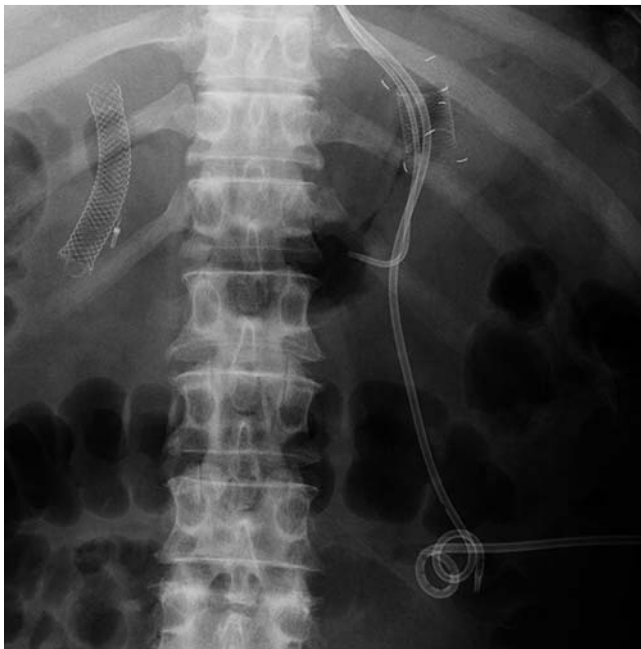


Fig. 5 Radiograph showing additional percutaneous catheter placement for abscess drainage.

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References

- 1 Kawakubo K, Isayama H, Kato H et al. Multi-center retrospective study of endoscopic ultrasound-guided biliary drainage for malignant biliary obstruction in Japan. *J Hepatobiliary Pancreat Sci* 2014; 21: 328–334
- 2 Ogura T, Higuchi K. Technical tips of endoscopic ultrasound-guided choledochoduodenostomy. *World J Gastroenterol* 2015; 21: E820–E828

Bibliography

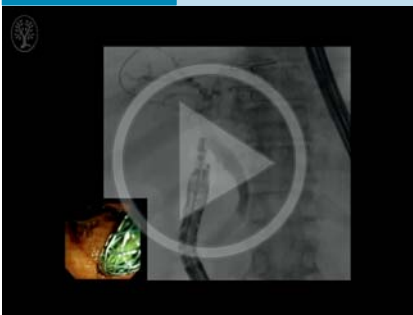
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Video 1



Endoscopic ultrasound-guided choledochoduodenostomy with a partially covered self-expandable metallic stent followed by direct endoscopic necrosectomy and single-transluminal-gateway transcystic multiple drainage technique through a Nagi stent.

SEMS has been reported and is preferred for reducing the risk for bile leakage and prolonging stent patency [1]. Generally, bile leakage occurs during dilation of the fistula tract before SEMS insertion. The findings described herein suggest that more attention should be paid to the possibility of bile leakage after EUS-CDS, even with the use of a covered SEMS.

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Competing interests: None