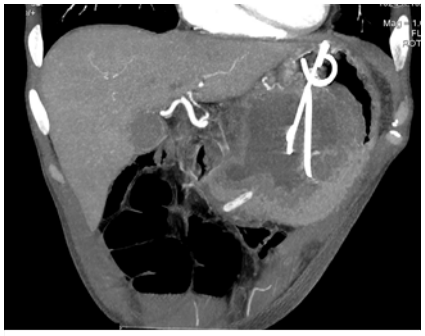
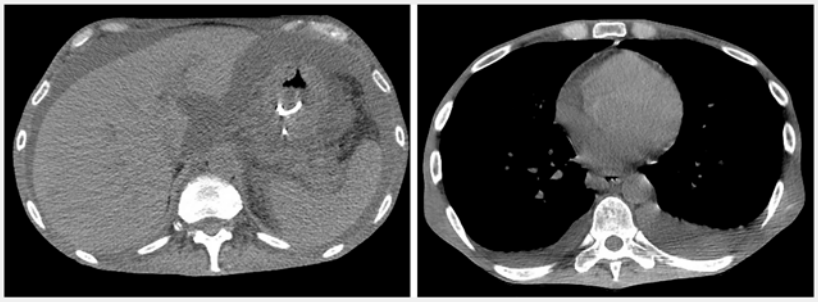
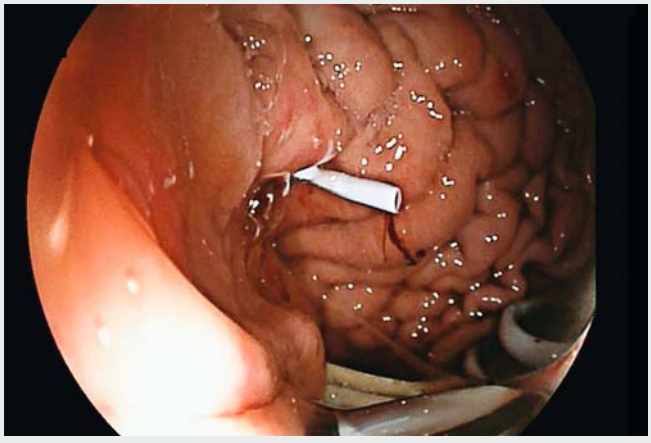
Endoscopic ultrasound-guided pancreaticogastrostomy as a rescue therapy for pancreatic ascites after failed ERCP



▶ **Fig. 1** Appearance of the pseudocyst after transgastric drainage.



▶ **Fig. 2** Computed tomography scan after 20 days demonstrating ascites and pleural effusions.



Video 1 Endoscopic ultrasound-guided pancreaticogastrostomy after failed transpapillary access.

Pancreatic ascites is a rare complication of chronic pancreatitis, associated with high mortality. Endoscopic retrograde cholangiopancreatography (ERCP) with pancreatic stenting is the treatment of choice, with the highest success rate, but the procedure can fail in up to 15% of cases [1–4].

We report the case of 51-year-old man referred to us for endoscopic ultrasound (EUS)-guided drainage of a large pseudocyst in the setting of chronic calcifying pancreatitis related to alcohol abuse. The procedure was performed successfully (▶ **Fig. 1**); however, he re-presented 20 days later in a poorer condition with abdominal distension. A computed tomography (CT) scan demonstrated massive ascites and bilateral pleural effusions (▶ **Fig. 2**). Analysis of the ascitic fluid revealed a high protein level, lipase of 3135 U/L, and amylase of 2740 U/L. Conservative therapy for 10 days failed and an ERCP was planned. An attempt at retrograde pancreatic duct cannulation was unsuccessful and in the same session EUS (EG-580 UT; Fujifilm, Tokyo, Japan) was performed (▶ **Video 1**). Despite detecting peripancreatic fluid collections, transgastric puncture of the main pancreatic duct with a 19G needle (SonoFlex; Endo-Flex GmbH, Voerde, Germany) was performed and pancreatography revealed a ductal leak at the level of the pancreatic tail (▶ **Fig. 3**). Antegrade transpapillary guidewire passage failed and EUS-guided pancreaticogastrostomy was performed. After tract dilation, using a 6-Fr cystotome (Cysto-Gastro-Set; Endo-Flex GmbH), followed by balloon dilation (4 mm; MaxPass; Olympus, Europe), a 7-Fr, 5-cm plastic stent was placed (▶ **Fig. 4**). No adverse events were observed.

The patient's condition improved and he was discharged 5 days later. A CT scan after 1 month demonstrated complete resolution of the ascites and pleural effusions (▶ **Fig. 5**). Further endoscopic interventions including fistula dilation and re-stenting are planned.

To our knowledge, this is the first case of EUS-guided pancreaticogastrostomy used as rescue therapy for pancreatic ascites. The procedure seems to be safe and feasible in poor surgical candidates when ERCP fails.

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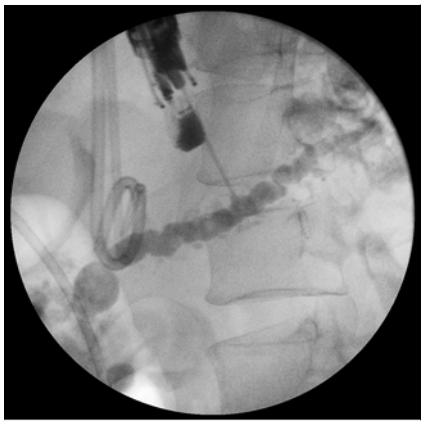
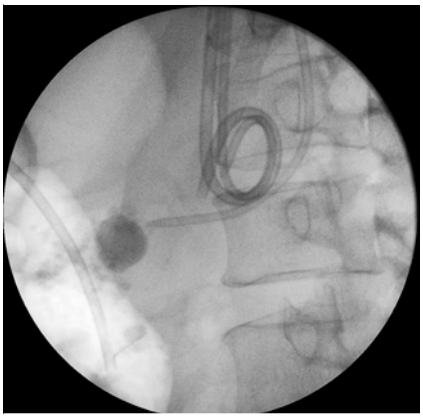
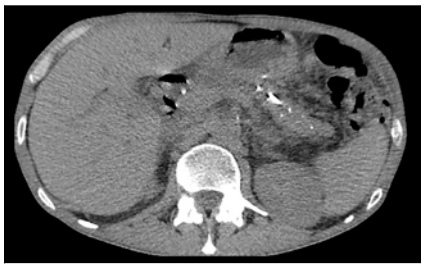


▶ **Fig. 3** Pancreatogram showing contrast leakage at the level of the pancreatic tail.



▶ **Fig. 4** Fluoroscopic image of the stents in the main pancreatic duct and common bile duct, and two pigtail stents in the pseudocyst.



▶ **Fig. 5** Follow-up computed tomography scan after 1 month showing complete resolution of the ascites.

Competing interests

The authors declare that they have no conflict of interest.

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Bibliography

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