

Successful management of arterial bleeding complicating endoscopic ultrasound-guided cystogastrostomy using a covered metallic stent



Fig. 1 A pancreatic pseudocyst in a 56-year-old woman, resistant to conservative management, punctured from the stomach under real-time endoscopic ultrasound (EUS) imaging.

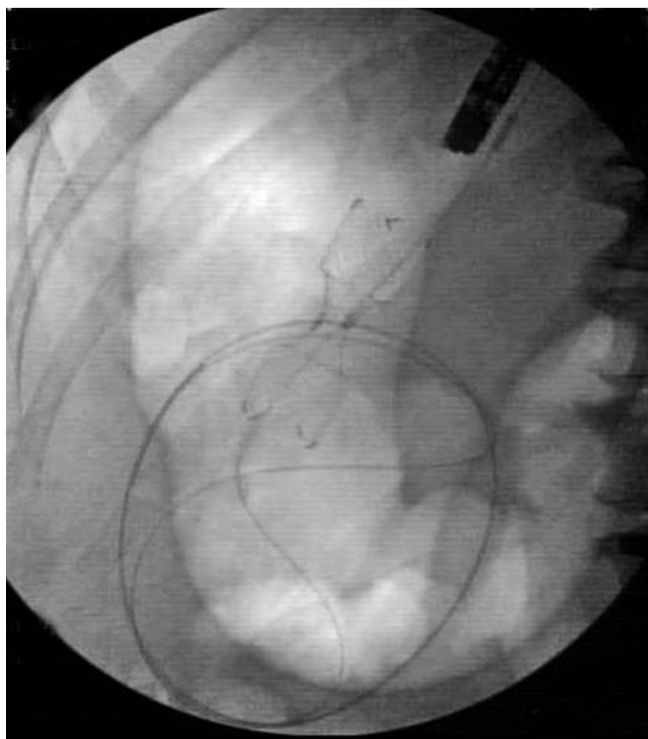


Fig. 3 An esophageal fully covered metallic stent was deployed at the fistula under endoscopic and fluoroscopic guidance.

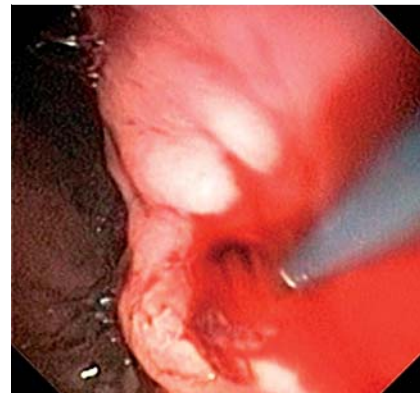


Fig. 2 After initial dilation using a 10-mm balloon, spurting arterial blood was seen along with gushing cystic fluid.



Fig. 4 Hemostasis achieved with mechanical tamponade.



Fig. 5 Retroflexed internal view of the pseudocyst showed a large blood clot but no active bleeding.

A 56-year-old woman with a symptomatic pancreatic pseudocyst refractory to conservative treatment was referred to us for endoscopic ultrasound-guided pancreatic pseudocyst drainage (EUS-PPD). EUS showed a 12-cm cyst near the pancreatic body and tail. The cyst was punctured using a 19-gauge fine needle aspiration (FNA) needle from the stomach under EUS imaging, after careful examination of the intervening vessels with Doppler function (● **Fig. 1**). A guide wire was coiled within the cyst, followed by dilation of the fistula with needle-

knife cautery and a 10-mm balloon. However, on deflation of the balloon, arterial blood was seen spurting from the fistula (● **Fig. 2**). The balloon was re-inflated to tamponade the fistula for another 5 minutes to achieve temporary hemostasis. Deflation of the balloon again resulted in arterial bleeding. Attempts to locate the exact bleeding point failed due to the brisk bleeding as well as cystic fluid gushing from the fistula. Therefore, we placed an esophageal, fully covered self-expandable metallic stent (FCMS; 18 mm×60 mm, Bonastent, Standard Sci-Tech, Seoul,

Korea) across the cystogastrostomy to tamponade the bleeding vessel, which led to successful hemostasis (● **Fig. 3** and ● **Fig. 4**). Inspection of the cyst cavity

showed a blood clot without active bleeding (● Fig. 5). The patient remained stable after the procedure and the stent was removed 1 month later with resolution of the pseudocyst.

EUS-PPD is a well-established and minimally invasive alternative to surgery for the management of symptomatic pancreatic pseudocysts [1]. A needle puncture under EUS with Doppler function should theoretically allow avoiding puncturing the adjacent major vessels. However, one study reported that active bleeding occurred in 5.3% of patients during EUS-PPD [2]. In the present case, inability to locate the exact bleeding point made it difficult to carry out thermocoagulation or clipping. An esophageal FCMS was then deployed at the cystogastrostomy, resulting in tamponade and immediate hemostasis. Several papers have reported use of an FCMS at the cystogastric fistula for better drainage [3,4] and closure of the perforation [5]. Our experience shows that the FCMS can also be used for hemostasis in a bleeding cystogastrostomy.

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Competing interests: None

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