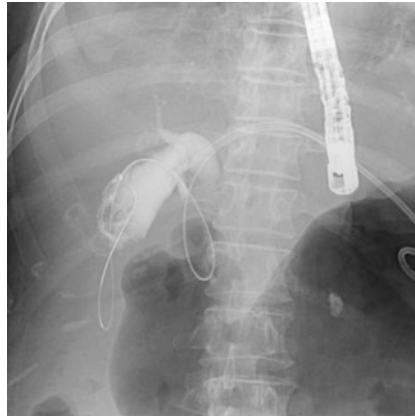


## Cholecystohepaticogastrostomy: novel endoscopic gallbladder drainage technique to prevent acute cholecystitis following endoscopic ultrasound-guided biliary drainage

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▶ **Video 1** Cholecystohepaticogastrostomy was performed via the hepaticogastrostomy route following endoscopic ultrasound-guided hepaticogastrostomy with antegrade stenting to prevent cholecystitis.



▶ **Fig. 1** Biliary access was achieved through the hepaticogastrostomy route, and successful cannulation of the cystic duct and gallbladder was confirmed by contrast injection.



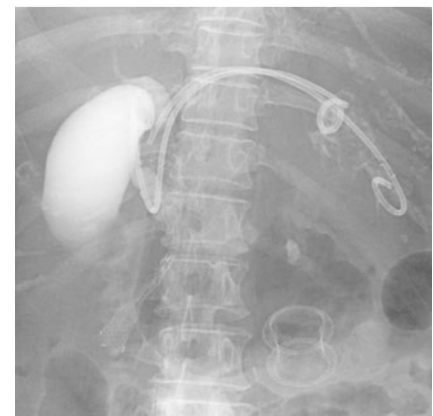
▶ **Fig. 2** A plastic stent (7-Fr in diameter; 18 cm in length; Through & Pass double-pigtail stent; Gadelius Medical, Tokyo, Japan) was placed between the gallbladder and the stomach.

For malignant distal biliary obstruction (DBO), placing a stent in an antegrade manner across the obstruction and papilla, followed by endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS), establishes dual biliary drainage pathways and may prolong stent patency [1]. However, acute cholecystitis can occur after biliary drainage with a fully covered self-expandable metal stent (FCSEMS) in cases of DBO [2]. We present a novel endoscopic approach for gallbladder drainage via the HGS tract, offering a viable option for high-risk patients who develop acute cholecystitis following FCSEMS placement.

A 72-year-old woman with advanced pancreatic adenocarcinoma presented with fever, chills, and hyperbilirubinemia. She had previously undergone EUS-guided gastrojejunostomy for gastric outlet obstruction and EUS-HGS for DBO 1 month prior. Imaging revealed dilated intrahepatic ducts and common bile duct, as



▶ **Fig. 3** A fully covered metal stent (10 mm in diameter; 7 cm in length; SciTech Inc., Seoul, Korea) was placed antegradely across the biliary obstruction and major duodenal papilla.



▶ **Fig. 4** The hepaticogastrostomy stent (7-Fr in diameter; 14 cm in length; Through & Pass Type IT; Gadelius Medical, Tokyo, Japan) for additional drainage was placed between the intrahepatic duct and the stomach.

well as gallbladder distention, suggesting biliary infection due to HGS stent occlusion. Upon admission, EUS-HGS was performed, and biliary access was obtained via the HGS route, with aspiration of purulent bile. Following successful cystic duct cannulation, selective gallbladder cannu-

lation was confirmed through contrast injection (▶ **Fig. 1**, ▶ **Video 1**).

A plastic stent (7-Fr diameter; 18 cm length; Through & Pass double-pigtail stent; Gadelius Medical, Tokyo, Japan) was placed between the gallbladder and stomach (▶ **Fig. 2**). Additionally, an

FCSEMS (10 mm diameter; 7 cm length; SciTech Inc., Seoul, Korea) was placed across the biliary obstruction and the major duodenal papilla following balloon dilation of the HGS tract (► Fig. 3). Subsequently, an HGS stent (7-Fr diameter; 14 cm length; Through & Pass Type IT; Gadelius Medical) was placed between the intrahepatic duct and the stomach (► Fig. 4). The patient's symptoms improved, and she was discharged in stable condition.

This novel gallbladder drainage technique via the HGS tract broadens treatment options for high-risk patients at risk of acute cholecystitis following EUS-HGS with FCSEMS.

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### Conflict of Interest

The authors declare that they have no conflict of interest.

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