Acute cholangitis after over-the-scope clip placement involving the duodenal papilla that was rescued by antegrade stenting via the percutaneous transhepatic biliary drainage route

The over-the-scope (OTS) clip (Ovesco Endoscopy, Tübingen, Germany) has been developed and is widely used for the treatment of gastrointestinal perforations and fistulas [1]. However, when the perforation or fistula is located near the duodenal papilla, the use of OTS clips poses a potential risk of acute obstructive cholangitis or pancreatitis from involvement of the papilla [2]. Herein, we report a case of acute cholangitis after OTS clip placement involving the duodenal papilla, which was rescued by antegrade stenting via the percutaneous transhepatic biliary drainage (PTBD) route. A 72-year-old woman was transferred from another hospital for the treatment of walled-off pancreatic necrosis (WON) after post-endoscopic retrograde cholangiopancreatography pancreatitis (▶Fig. 1), and percutaneous drainage was performed. Contrast injected via the percutaneous tube 12 days after the procedure revealed a fistula between the WON and the duodenum (▶Fig. 2). Because the infected WON was well controlled, closure of the endoscopic fistula was performed with two OTS clips (▶Video 1). The day following the procedure, the patient developed abdominal pain and fever, and a computed tomography scan showed bile duct obstruction due to the OTS clip. Endoscopy revealed that the duodenal

▶Fig. 1 Contrast-enhanced computed tomography image showing a large area of walled-off pancreatic necrosis.

▶Fig. 2 Radiographic image following injection of contrast via the percutaneous tube showing a fistula (arrow head) between the walled-off pancreatic necrosis and the duodenum.

▶Video 1 Video showing closure of the fistula by over-the-scope clip placement and subsequent successful antegrade stenting via the percutaneous transhepatic biliary drainage route for acute cholangitis caused by the clip placement involving the duodenal papilla.

▶Fig. 3 Endoscopic views: a before performing fistula closure; b after closure of the fistula with over-the-scope (OTS) clips showing the duodenal papilla (arrow) had been caught in the clip.
papilla had been caught in the clip, and PTBD was performed (▶Fig. 3). Antegrade stenting via the PTBD route was successfully achieved 14 days later (▶Fig. 4). Subsequently, after repeated biliary stent replacement, the OTS clips spontaneously dislodged. The patient has remained symptom-free after stent removal.

When closing a fistula of the duodenum, it is often difficult to secure a clear visual field owing to the narrow lumen and edematous mucosa surrounding the lesion. The findings from this case suggest that, when a fistula is located near the duodenal papilla, endoscopists should consider prophylactic measures, such as biliary and pancreatic stenting, or placement of a standard endoclip between the fistula and the duodenal papilla [3].

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Competing interests

A. Katanuma has received lecture fees from Olympus Co., Tokyo, Japan. The remaining authors declare that they have no conflict of interest.

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