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

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**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].

References


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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