Closure with an over-the-scope clip allows therapeutic ERCP to be safely performed after acute duodenal perforation during diagnostic endoscopic ultrasound

The use of endoscopic ultrasound (EUS) before endoscopic retrograde cholangiography (ERC), if performed, can prevent two-thirds of unnecessary ERC procedures [1]. Duodenal perforation during diagnostic EUS occurs with an incidence of less than 1% [2]. When perforation does occur, surgical or conservative management is possible. Surgery permits simultaneous intestinal perforation and sealing the wound with aspirated greater omentum. Both perforations were immediately recognized, but we continued to use room-air insufflation – the use of carbon dioxide in this situation is highly recommended. An 11t/6-mm OTSC was released, drawing together the margins of the perforation and sealing the wound with aspirated greater omentum. In both patients a small pneumoperitoneum was detected during the procedure; however, contrast medium was injected under pressure and no leakage was detected.

In each case after the perforation had been successfully closed, endoscopic sphincterotomy was performed to re-establish biliary drainage. Prophylactic antibiotics were started and both patients were kept fasting for 48 hours. Neither patient needed to be managed in the intensive care unit and no further imaging investigations were required. Both patients made good progress, with regression of their inflammatory syndromes, and were discharged from hospital free of symptoms 72 hours after intervention.

In conclusion, an OTSC is a reliable device in the treatment of acute accidental gastrointestinal perforation during EUS, which allows therapeutic ERC to be performed immediately afterwards.

**Competing interests:** None

**References**


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Fig. 2 Radiographic views showing: a the over-the-scope clip (OTSC) in place with a small pneumoperitoneum visible; b the appearance after through-the-scope injection of contrast medium with no leakage of contrast, confirming a watertight outcome following placement of the OTSC; c therapeutic endoscopic retrograde cholangiography (ERC) being performed following closure with an OTSC of the acute duodenal perforation that occurred during diagnostic endoscopic ultrasound (EUS).