Endoscopic ultrasound-guided fine needle aspiration and endoscopic biliary drainage following closure of a duodenal perforation with an over-the-scope clip

Endoscopic ultrasound (EUS)-guided fine needle aspiration (FNA) followed by endoscopic retrograde cholangiopancreatography (ERCP) are complementary procedures in the evaluation of obstructive jaundice with a median procedure length of 25 minutes [1]. Duodenal perforation can occur during EUS [2], but we have previously reported that ERCP can still be performed following successful closure of the perforation with clips [3].

A 76-year-old woman who was jaundiced was scheduled for combined EUS-FNA and endoscopic biliary drainage (EBD). The EUS showed a hypoechoic mass at the level of the neck of the pancreas with dilatation of the duct of Wirsung and the bile ducts, and evidence of vascular infiltration. The greater omentum was visualized during the EUS procedure (Fig. 1), because of a perforation at the level of the proximal duodenal flexure. We therefore used a standard gastroscope and switched to carbon dioxide insufflation to close the perforation. This was achieved by first aspirating the greater omentum and then releasing an over-the-scope clip (OTSC). We have shown that extending the length of the endoscopic procedure in order to perform both procedures was feasible and did not compromise patient safety.

The patient was subsequently started on chemotherapy.

Here we report, to our knowledge, the first case in which both an EUS-FNA and an ERCP were performed after a duodenal perforation had been treated with an OTSC. We have shown that extending the length of the endoscopic procedure in order to perform both procedures was feasible and did not compromise patient safety.

Endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) showing a duodenal perforation as evidenced by visualization of the greater omentum.

Fig. 1  Endoscopic view in a 76-year-old woman with jaundice who was undergoing endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) showing a duodenal perforation as evidenced by visualization of the greater omentum.

Competing interests: None

References
1 Aslanian HR, Estrada JD, Rossi F et al. Endoscopic ultrasound and endoscopic retrograde cholangiopancreatography for obstructing pancreas head masses: combined or separate procedures? J Clin Gastroenterol 2011; 45: 711–713
3 Donatelli G, Vergeau BM, Dritsas S et al. Closure with an over-the-scope-clip allows therapeutic ERCP to be safely performed after acute duodenal perforation during diagnostic endoscopic ultrasound. Endoscopy 2013; 45 (Suppl. 02): E392 – E393

Bibliography

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Fig. 2 a – d  See following page.

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Fig. 2 Radiographic images showing: a by injection of contrast medium, the watertight closure of the perforation that was achieved by application of an over-the-scope clip (OTSC); b endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) being performed; c stenosis of the common bile duct due to pancreatic cancer; d the plastic biliary stent that was successfully placed to achieve biliary drainage.