A rare case of gastric wall abscess arising after endoscopic ultrasound-guided fine-needle aspiration of solid pancreatic mass

► **Fig. 1** Abscess of the stomach wall associated with endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) of a solid pancreatic mass. **a** Magnetic resonance imaging showed a mass in the pancreatic body (arrow). **b** The pathological diagnosis was severe dysplastic glands and cells; adenocarcinoma was suspected. **c** Computed tomography (CT) scan showed a hypoattenuating lesion in the posterior stomach wall (arrow), which occurred 7 days after EUS-FNA. **d** Gastroscope showed a submucosal mass in the posterior wall of the stomach body. **e** White pus flowed out after endoscopic incision with a hook knife. **f** A second CT scan on the 10th day after endoscopic therapy showed that the abscess had disappeared.

A 55-year-old man was admitted to our hospital because of a 7-month history of upper abdominal pain. The magnetic resonance imaging (MRI) scan showed a solid mass occupying the body and tail of the pancreas (► **Fig. 1 a**). To make a more definitive diagnosis, endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) was carried out with a 22-gauge needle (EchoTip Ultra HD; Wilson-Cook Medical Inc., Winston Salem, North Carolina, USA). In total, five passes were completed using a fanning technique. Pathological examination of the collected tissue revealed severe atypical epithelial cells, and adenocarcinoma was suspected (► **Fig. 1 b**). Combined with

MRI images, we clinically diagnosed pancreatic adenocarcinoma. One week later, the patient developed increasing upper abdominal pain with high fever. Laboratory examination showed a white blood cell count of 6020 cells/ μ L and an elevated C-reactive protein (CRP) level of 182.7 mg/dL. Computed tomography (CT) scan revealed a hypoattenuating mass in the posterior stomach wall (► **Fig. 1 c**). The patient was diagnosed with a gastric wall abscess that developed after EUS-FNA. Antibiotic therapy with meropenem was started, but after 3 days the response was poor. Therefore, endoscopic drainage was initiated.

A hook knife (KD-620QR HookKnife; Olympus Corp., Tokyo, Japan) was used to make an incision in the mucosa (► **Fig. 1 d, e**, ► **Video 1**). Two days after endoscopic drainage, the abdominal pain and fever disappeared, and the CRP level decreased to normal ranges. A second CT scan on the 10th day after endoscopic therapy showed that the abscess had completely disappeared (► **Fig. 1 f**). The main postoperative complications of EUS-FNA include bleeding, perforation, infection, and acute pancreatitis, with a total morbidity of 1.2% [1]. Infectious complications associated with EUS-FNA of solid lesions are infrequent, with an incidence of 0–0.6% [2, 3]. Abscess of the

Video 1 Endoscopic treatment of a gastric wall abscess. Sufficient drainage of pus was made by exposing the abscess cavity with a hook knife and pressing a transparent cap against the gastric wall.

stomach wall arising from EUS-FNA is extremely rare. From our experience, endoscopic incision and drainage seems to be an efficient treatment for such complication.

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Competing interests

None

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