Progressive growth of a cystic lesion near the pancreatic head

A 56-year-old man was admitted to hospital because of upper abdominal pain and mild fever for 2 weeks. One month previously, the patient had undergone resection of the body and tail of the pancreas and splenectomy for pancreatic malignant tumor, and 2 weeks ago, the patient experienced abdominal pain with mild fever. Enhanced computed tomography (CT) showed a blurred fat space in front of the pancreatic head and swelling of the intestinal wall (Fig. 1a). The symptoms gradually worsened and vomiting occurred a few days before admission. Repeat CT showed a round, low-density mass (diameter 4.6 cm) near the pancreatic head (Fig. 1b). Clinicians considered the diagnosis of pancreatic pseudocyst with infection. Endoscopic ultrasonography (EUS)-guided cyst aspiration was planned. Endoscopy revealed a large protuberance in the posterior wall of the antrum, several ulcers on the surface (Fig. 2), and stenosis of the antrum. EUS showed an elliptical, uneven, hypoechoic mass near the pancreatic head (Fig. 3a), and fluid movement within the mass.

Fig. 1 Enhanced computed tomography (CT). a A blurred, fat space in front of the pancreatic head was seen, with swelling of the intestinal wall. b Repeat CT showed a round, low-density mass (diameter 4.6 cm) near the pancreatic head.

Fig. 2 Endoscopy revealed a large protuberance in the posterior wall of the antrum, with several ulcers on the surface.

Fig. 3 Endoscopic ultrasound. a An elliptical, uneven, hypoechoic mass was seen near the pancreatic head, with fluid movement within the mass. b Color Doppler showed disorder of blood flow within the mass.
Color Doppler ultrasound showed dis-order of blood flow within the mass (\textit{\textbf{Fig.3b}}), and pulse Doppler ultra-sound detected different types of blood flow (\textit{\textbf{Video 1}}). A diagnosis of pseudoaneurysm was confirmed. The patient underwent emergency surgery. Massive hematemesis occurred after tracheal intubation under general anesthesia. Immediate laparotomy confirmed a pseudoaneurysm of the celiac artery trunk, which had ruptured into the gastric cavity; successful repair was performed.

Pancreatic pseudoaneurysms are rare complications of acute or chronic pancreatitis [1]. Surgery is another cause of pancreatic pseudoaneurysm [2]. The main clinical symptom is abdominal or digestive tract hemorrhage, with a high mortality rate. Contrast-enhanced CT angiography and digital subtraction angiography are the main methods used to diagnose pancreatic pseudoaneurysm [3]. EUS is also an effective method of diagnosis.

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\textbf{Competing interests}

The authors declare that they have no conflict of interest.

\textbf{The authors}

\textit{Chuncheng Wu\textsuperscript{1,*}, Shuanghong Luo\textsuperscript{2,*}, Bing Hu\textsuperscript{1}}

1 Department of Gastroenterology, West China Hospital, Sichuan University, Chengdu, Sichuan, China
2 Department of Pediatrics, West China Second University Hospital, Sichuan University, Chengdu, Sichuan, China

\textbf{Corresponding author}

\textit{Bing Hu, MD}
Department of Gastroenterology, West China Hospital, Sichuan University, No. 37 Guo Xue Xiang, Chengdu, Sichuan, 610041, China
Fax: +86-28-85423387
hubingnj@163.com

\* These authors contributed equally to this work.