

CASE REPORT

Unusual tubular cystic lesion compressing inferior vena cava

Surinder S Rana,*  Jimil Shah,* Ravi Sharma* and Rajesh Gupta[†]

Departments of *Gastroenterology and [†]Surgery, Post Graduate Institute of Medical Education and Research, Chandigarh, India

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Correspondence

Dr Surinder S Rana, Department of Gastroenterology, Post Graduate Institute of Medical Education and Research, Chandigarh 160 012, India.
Email: drsurinderrana@gmail.com

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Abstract

Fluid collections are important local complications of acute pancreatitis (AP). They are usually located in peri-pancreatic region but can also be found in various atypical locations like mediastinum, spleen, liver, pelvis or neck. Such pancreatic fluid collections in atypical locations can cause diagnostic dilemma and may cause delay in management. We report an interesting case of AP who presented to us with a walled-off necrosis mimicking a long cystic mass lesion surrounding the IVC.

Introduction

Acute pancreatitis (AP), especially acute necrotizing pancreatitis, is a life-threatening condition with high morbidity and mortality. Peripancreatic fluid collections are one of the most important local complications of AP.¹ Pancreatic pseudocyst is a collection of pancreatic secretions enclosed by a well-formed fibrous wall.¹ Although such pancreatic collections are most commonly found in the peripancreatic region, they can also be found in various atypical locations, such as the mediastinum, spleen, liver, pelvis, or neck.^{2–4} Such pancreatic fluid collections in atypical locations can cause diagnostic dilemma and may cause delay in management. A total of 40–60% of pancreatic fluid collection resolves without any need of intervention.⁵ However, symptomatic fluid collections require drainage. Here, we report an interesting case that presented to us with a long cystic mass lesion surrounding the inferior vena cava (IVC) after an episode of acute abdominal pain.

Case report

A 32-year-old male presented elsewhere with abdominal pain following an alcohol binge. He was diagnosed with acute necrotizing pancreatitis based on elevated serum amylase and lipase and imaging findings. He was treated with conservative management

at that center. After an asymptomatic period of 1 week, he had recurrence of abdominal pain and was referred to us for further management. Contrast-enhanced computed tomography of the abdomen demonstrated a long tubular cystic lesion measuring 7 × 3 cm around the IVC (Fig. 1a; arrows). Endoscopic ultrasound (EUS) indicated a focal area of altered echotexture in the uncinate process of pancreas (Fig. 1b; open arrows), suggesting focal pancreatitis. The inflammatory process was seen extending into the adjacent retroperitoneum (Fig. 1b; bold arrows), leading to the formation of a cystic lesion compressing the IVC. This cystic lesion had a variable amount of solid component (Fig. 1c; bold arrows), suggestive of walled-off necrosis (WON). A small duodenal cystic lesion was also noted (Fig. 1; open arrows). Because of ongoing pain, nasojejunal (NJ) tube feeding was initiated. Post-NJ feeding, the patient had marked improvement in symptoms and was pain free 2 weeks later. EUS demonstrated resolution of peri-IVC WON. Oral feeding was gradually initiated, and the patient was pain free after 8 weeks of follow up.

Discussion

Pancreatic fluid collections at an atypical location pose a special challenge to the diagnosis as well as treatment for the treating clinician. Due to close proximity of pancreas with various

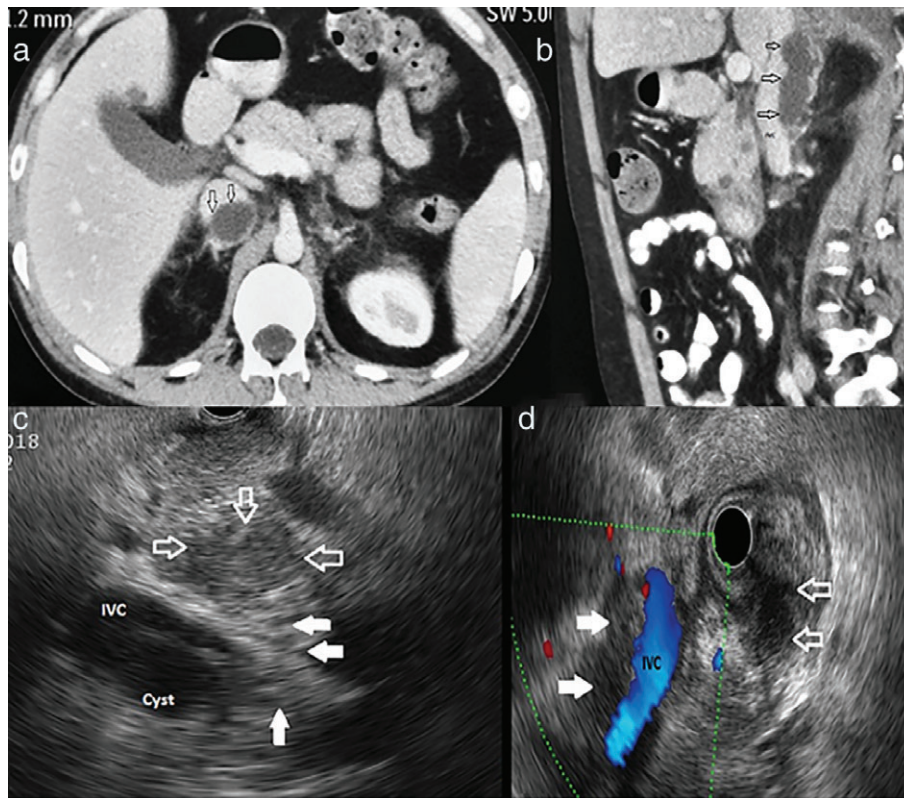


Figure 1 (a) and (b) Contrast-enhanced computed tomography of abdomen: Long tubular cystic lesion measuring 7 × 3 cm around inferior vena cava. (c) Endoscopic ultrasound (EUS): Focal area of altered echotexture in the uncinate process of pancreas (open arrows), suggesting focal pancreatitis. (d) EUS: Cystic lesion had variable amount of solid component (bold arrows) suggestive of walled-off necrosis. A small duodenal cystic lesion is also noted (open arrows).

visceral organs and vascular structures, pancreatic fluid collections can cause various complications by either causing compression or erosion of these structures. Pancreatitis-related venous complications are quite frequent but rarely reported.⁶ It includes splenic or portal vein thrombosis, acute venous thrombosis causing bowel infarction, and renal or testicular vein compression causing varicocele. A pseudocyst may also be present in the mediastinum and presents with dysphagia or cough. However, a pseudocyst presenting around the IVC is rarely reported in literature and may even cause IVC thrombosis and pulmonary embolism.^{7,8}

Management options in such an atypically located pseudocyst include either medical management or percutaneous, endoscopic, or surgical drainage.³ Medical or conservative management includes symptomatic management in the form of analgesics, antiemetics, NJ feeding, or total parenteral nutrition.⁹ With such a conservative management, 40–60% of pseudocysts resolve without any further intervention. However, in the presence of complications such as infection, persistent pain, suspected bleeding, or compression of surrounding organs, drainage is required. Endoscopic transpapillary or transmural drainage is usually the preferred drainage route depending on the size, location, and presence of duct communication.^{3,10} Our patient did not require drainage of the collection as he responded to conservative management with NJ feeding.

This case report highlights the importance of clinical suspicion and early diagnosis of such atypical locations of the pancreatic collections. EUS can be of great value in the diagnosis of such an atypical cystic lesion as well as in differentiating pseudocyst from WON.

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