

Constellation of Rare Complications Following Acute Pancreatitis: A Case Report

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Abstract

Acute pancreatitis is characterised by inflammation of pancreas which can be of varying severity depending on the local and systemic complications [1]. Pancreatitis can be interstitial which is comparatively mild or associated with necrosis. Necrotising pancreatitis are characterised by non-viable pancreatic tissue associated with surrounding fat necrosis. It can be associated with collections that in acute stage are called acute necrotising collections and in chronic stages are called walled off necrosis (WON) [2]. Severe acute pancreatitis can involve the surrounding gastrointestinal tract leading to formation of a fistula. The causes of it can be the direct erosion of the surrounding organs by the inflammation of pancreas or due to vascular thrombosis causing necrosis of an area of inflammation. It may present as haemorrhage or sepsis [3]. An enterovesical fistula (Figure 1) is an extremely rare complication of necrotising pancreatitis. Pseudoaneurysms are another rare set of complications associated with pancreatitis that can occur due to the pancreatic enzymes eroding the surrounding planes [4]. This case involves the simultaneous presence of these uncommon scenarios in a single patient.

Case Report

A 31year old chronic alcoholic patient presented to the emergency department with complaints of pain in left lumbar and iliac region for 15 days associated with obstipation and bilious vomiting for 4 days and fever for 2 days. On examination, he was anxious, dehydrated and tachycardic. His per-abdomen examination revealed generalized distension with localized tenderness in the left lumbar region with guarding or rigidity. His serum lipase levels were 198 units/L (normal = 13-60 units/L), total leucocyte count was 15,400/cmm (normal = 4,000-10,000/cmm) and hemoglobin levels was 7.4 g/dl (normal=12-16 g/dl). Rest of the blood workup was normal. Initial resuscitation was done with fluid and antibiotics. Urethral catheterization was done for monitoring which showed bile stained muddy urine with sediments. The urine cytological examination was suggestive of pus cells and RBCs. Ultrasonography revealed gross septated fluid in left hypochondrium, lumbar and iliac regions with echogenic contents and thickened omentum. For further evaluation, a CT scan of abdomen was done which reported necrotic area within body and tail of pancreas involving less than 30% area with multiple hypodense peripherally enhancing collections in anterior pararenal space along with left paracolic gutter and left supramesocolic space. Another hypodense collection was seen in superior to dome of bladder with adjacent clumped distal jejunal loops which showed extravasation of oral contrast in the collection. The collection also communicated with the bladder with a tract that measured 15.5 mm, suggestive of an enterovesical fistula (Figure 1). The patient was initially managed conservatively along with total parenteral nutrition and an ultrasound guided pigtail catheterization of suprapubic collection to control the intra- abdominal collection. The output through the pigtail catheterization gradually decreased by post admission day 14 with simultaneous improvement of clinical condition. The urine output also became clearer. He was started on enteral feeding. On post admission

day 15, the patient developed two episodes of hematemesis. It was decided to proceed with a CT angiography that revealed a wide necked splenic artery pseudoaneurysm (Figure 2) with no extravasation. Urgent coil embolization of the artery was done. Postembolization arteriogram showed complete occlusion of the splenic artery pseudoaneurysm (Figure 2) and normal preserved flow into the spleen. The patient was kept under observation and discharged on post admission day 20 after removal of the pigtail catheter which had no output. The patient is currently being followed up in the outpatient department and is doing well.

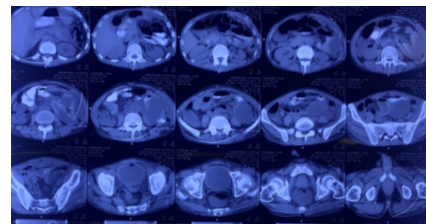


Figure 1: CT Abdomen showing the necrosis of pancreas with intraabdominal collections and enterovesical fistula.

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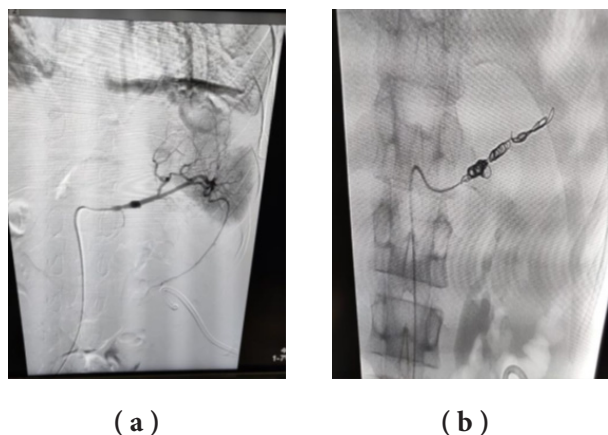


Figure 2 (a, b): Digital subtraction angiography showing pseudoaneurysm of splenic artery, post coil embolization.

Discussion

Severe acute pancreatitis is a catastrophic event and its complications are associated with high rates of morbidity and mortality. Enteric fistulas associated with severe acute pancreatitis are a known entity but a vesicoenteric fistula associated with necrotising pancreatitis is an exceedingly exceptional scenario. Literature reports most of the enteric fistulas to be colonic and next duodenal in origin and jejunal involvement is a less commonly seen entity [5, 6, 7]. Most of the upper GI fistulas close spontaneously [3]. In our case, we took a conservative approach by undertaking a percutaneous drainage of the infected collection along with broad spectrum antibiotics to control sepsis. Since upper GI fistulas are associated with severe electrolyte and fluid losses, his labs and vitals were closely monitored. He was kept on parenteral nutrition to allow the fistula output to reduce. Pseudoaneurysm is also a less known complication of pancreatitis that can be associated with or without an abscess or pseudocyst. They can occur due to erosion of the vessel wall by pancreatic secretions. The most commonly involved arteries as in this case are splenic artery. The mortality rates of bleeding from such pseudoaneurysms can be as high as 50% but early angiography followed by timely coil embolization helped salvage the patient [8]. A surprising array of complications in this patient of alcohol induced necrotizing pancreatitis made this one of the first known cases.

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