CASE REPORT

Necrotising pancreatitis presenting as a painful mass in the groin and sepsis

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SUMMARY

Acute pancreatitis is typically associated with classical clinical and radiological features. The sensitivity of CT to diagnose acute pancreatitis depends on the severity of the attack and ranges from 77% to 92% with a specificity approaching 100%. Despite the fact this is a common disease, there are myriad clinical presentations of acute pancreatitis. We report herein an especially rare presentation where severe acute necrotising pancreatitis presented with a tender inguinoscrotal swelling with a normal pancreas on CT imaging.

BACKGROUND

This case represents a unique presentation of a common condition. It illustrates the challenges in diagnosing pancreatitis in certain instances and the value of maintaining a high index of suspicion, even when all of the usual diagnostic criteria fail to provide a clear diagnosis. This case will be of value to other medical professionals; particularly general practitioners, surgical trainees and emergency doctors as an aid should they come upon a similarly obscure case.

CASE PRESENTATION

A 64-year-old man presented to the emergency department with a 6-day history of a right-sided inguinoscrotal swelling, this had become tender in the preceding 24 h. He had mild lower abdominal pain. There was a chronic history of excessive alcohol intake of approximately 60 units per week at the time of presentation. Notably, he did not report any prior episodes of abdominal pain when questioned.

The patient was afebrile, pulse rate was 76 bpm and blood pressure 95/70 mm Hg. There was mild tenderness to palpation in the suprapubic region and the right iliac fossa, with no evidence of peritonism. A 6 cm tender, erythematous swelling was present in the right groin extending into the scrotum. There was no cough impulse or bowel sounds in the mass.

INVESTIGATIONS

The white cell count was $11.7 \times 10^9/l$, amylase was 891 IU/l, marked hypocalcaemia and C reactive protein 303 mg/l. Ultrasound scans of the groin and scrotum were performed, which revealed an inflammatory mass and marked thickening of the right spermatic cord (figure 1). Fluid was observed to be tracking from the retroperitoneal space to the inguinal canal. CT (Figures 2 and 3) revealed marked soft tissue stranding and fluid within the right pararenal and perinephric spaces, with thickening of adjacent ascending colon and duodenum

Figure 1 Thoracic-abdominal CT showing retroperitoneal fluid tracking into the inguinoscrotal region (B and C). Pancreas appears normal (A).

and a right paracolic fluid collection. There was no free air. The pancreas appeared normal. There were bilateral pleural effusions.

Within 4 h of admission the patient became progressively dyspnoeic, hypoxic and deteriorated rapidly requiring transfer to the intensive care unit (ICU) and mechanical ventilation. He became febrile (39°C) and showed signs of multiorgan dysfunction including respiratory failure, liver dysfunction and shock requiring inotropic support.

Figure 2 Normal pancreatic head (A), fluid in the hepatorenal pouch (B) and perinephric space (C).

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Figure 3 Normal pancreatic tail.

CT-guided drainage of the paracolic fluid collection was performed yielding dark brown fluid with an amylase content of $>10\,000$ IU/l (figure 4).

TREATMENT

He was managed through standard protocols for severe acute pancreatitis over 4 weeks in the ICU, and a further 4 weeks in the ward prior to discharge home. Serial CT scans throughout this time consistently showed a normal pancreas.

OUTCOME AND FOLLOW-UP

Clinical review at 1 year revealed him to be well and symptom free.

DISCUSSION

This case of severe acute pancreatitis is particularly rare. Four similar cases presenting with groin swelling have been published.^{1–4} Fluid emanating from the pancreas may track along the path of the testicular vessels and descend within the retroperitoneum on the psoas major prior to entering the inguinal canal. Inguinoscrotal swelling and erythema may thus occur due to localised fat necrosis secondary to enzyme-rich pancreatic exudates or irritation from necrotic pancreatic debris. In most instances, fluid collections of infectious, neoplastic, inflammatory or traumatic origin can be contained within the retroperitoneal space. However, rapid increase of pressure within the

space resulting from a large fluid collection, may lead to expansion of the laminated, retroperitoneal fascial planes to facilitate decompression.⁵

The differential diagnosis for a painful groin mass includes incarcerated or strangulated inguinal or femoral hernia, epididymo-orchitis, Hodgkin's lymphoma, mononucleosis, iliopsoas bursitis and tuberculosis. Rarer presentations which have been documented include perforated appendicitis, endometriosis and abdominoinguinal Schwannoma.⁶

Modification of severity prediction scoring continues to improve the stratification of acute pancreatitis in cases where a diagnosis is established.⁷ Recent years have witnessed rapid advancement in CT technology with helical acquisition allowing multiplanar reformats and better contrast-enhancement protocols. The literature on CT in pancreatitis cites sensitivity rates of 77–92% and specificity rates approaching 100%.^{8–9} However, this case represents an unusual exception with serially negative CT findings despite a clear diagnosis of pancreatitis, based on aspirated necrotic pancreatic fluid from a retroperitoneal collection.

In conclusion, the case highlights two valuable clinical lessons; an unusual clinical presentation of severe pancreatitis, and the fact that the pancreas can occasionally be radiologically normal in the setting of severe acute pancreatitis. The case also highlights the challenging nature of diagnosing pancreatitis and the importance of retaining a high index of clinical suspicion for pancreatitis in patients with abdominal pain or systemic illness of obscure aetiology.

Learning points

- ▶ A normal CT pancreas does not outrule pancreatitis.
- ▶ Pancreatitis can present as a groin mass.
- ▶ A high index of suspicion for pancreatitis should be maintained in the setting of a presentation where the aetiology is obscure.

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Figure 4 CT-guided paracolic fluid drainage.

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