



Psoas Abscess - An Unusual Presentation of WOPN

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Abstract

Walled off Pancreatic Necrosis can extend beyond peri pancreatic region in view of digestive nature of pancreatic juice. The extension into retro peritoneal planes is not common and within the psoas muscle is very rare with only limited number of cases reported in literature so far. This case report is regarding an unusual presentation of biliary pancreatitis with psoas abscess. This report also signifies the need of prompt surgery in Step up approach of managing severe acute pancreatitis.

Keywords: Pancreatitis; WOPN; Psoas abscess; Pancreatic fistula

Introduction

Severe Acute Pancreatitis (SAP) can manifest with systemic and local complications. Walled off Pancreatic Necrosis (WOPN) is a local complication, occurring 4 weeks after the inciting event. It occurs in around 15 percent of patients with SAP [1]. High mortality rate associated with WOPN underscores the importance of its prompt recognition and appropriate management. It is usually intra abdominal, but can have unusual sites of presentation. This is a case report of one such rare presentation of WOPN.

Case Presentation

A 55 years old non alcoholic male presented elsewhere with severe acute biliary pancreatitis 6 months back, which was managed conservatively. Following a transient improvement, patient developed features of infected WOPN. A Step Up approach was planned and pigtail was inserted into the lesser sac collection under ultrasound guidance from left flank. It was draining around 75 ml of pus daily. Since there was improvement in general condition, he was discharged with pigtail drain in situ. But patient lost to follow up and eventually landed with persistent sepsis due to undrained WOPN leading to obstructive jaundice and cholangitis. Patient underwent emergency ERC and CBD stenting to tide over the crisis and was then referred to our centre for further management.

On presentation, patient had high grade fever with chills and rigors. He also had characteristic fixed flexion deformity of right hip with exaggerated lumbar lordosis. Laboratory parameters showed neutrophilic leucocytosis and elevated serum amylase and lipase levels. Contrast Enhanced Computed Tomography (CECT) of abdomen revealed approximately 10 cm × 10 cm thick walled collection posterior to pancreas (Figure 1). It had multiple air pockets and areas of heterogeneous enhancement with pigtail *in situ*. This collection was extending retroperitoneally along the right psoas muscle towards pelvis. CBD stent was in place with minimal central intra hepatic biliary radical dilatation and gall bladder had few calculi.

In view of persistent sepsis due to undrained WOPN, which was extending into psoas plane, he was planned for open drainage. On laparotomy, the collection was approached through gastrocolic ligament and around 250 ml of pus was drained. Necrosed pancreas, which was loosely adherent, was debrided. The collection was found tracking anterior to right psoas, which was drained completely and thorough lavage was given (Figure 2). Cholecystectomy was done. Multiple drains were inserted including the one in the psoas cavity. Abdomen was closed and continuous lavage was done in the immediate post operative period. He recovered well and drains were removed sequentially, leaving a drain in lesser sac, which was draining 50 ml amylase rich fluid every day. The patient was discharged with controlled pancreatic fistula drain. In the follow up 45 days later, the drain output was nil and was removed after an ultrasonogram showing no intra abdominal collection.

Discussion

Fluid collections subsequent to pancreatitis usually present around pancreas. However, they can also occur in various rare locations in view of retroperitoneal location of pancreas combined

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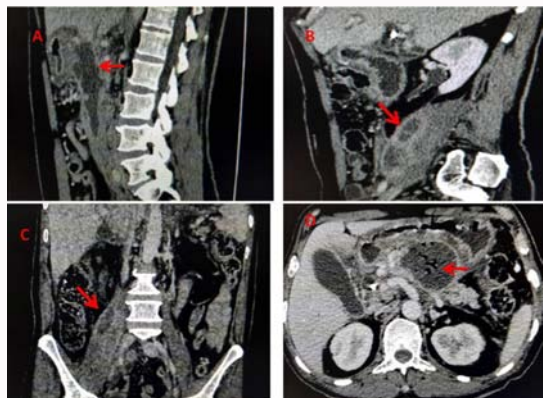


Figure 1: CECT abdomen. **A:** Sagittal film showing the abscess cavity from lesser sac to psoas (arrow mark indicating the extension). **B:** Sagittal film showing the dumbbell abscess. **C:** Coronal film showing the psoas abscess. **D:** Cross section demonstrating walled off pancreatic necrosis with air specs inside.

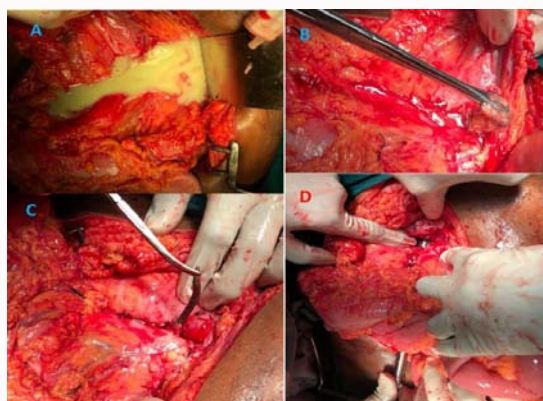


Figure 2: **A:** Pus being drained out from the cavity. **B:** Debridement of necrotic pancreas from the lesser sac. **C:** Pigtail catheter being retrieved from the abscess cavity. **D:** Picture showing the communication between psoas cavity and lesser sac.

with digestive action of pancreatic enzymes. The most commonly involved spaces in these conditions are anterior pararenal space and retroesenteric plane. These fluid may spread posteriorly to involve the retrorenal plane or laterally into the lateroconal plane. At times, the activity can spread inferiorly in the combined interfascial plane to reach up to the pelvic retroperitoneum or superiorly up to the diaphragm or even to enter the mediastinum. These fascial planes provide a weak barrier to for the spreading inflammation [2].

Anatomically lesser sac being more yielding they present as lesser sac collections. But as the severity and duration of pancreatitis increases, spread into the retroperitoneal planes will be more evident resulting in unusual presentations of these complications. Ishiwka et al. [3] had described and classified these collections depending upon its location and retroperitoneal extension.

More than half of the pseudocysts undergo spontaneous resolution following conservative management. Pseudocyst size alone is not the criteria for intervention but depends upon clinical symptoms like

infection, pain and compression on adjacent structures. In a clinically stable patient, collections warranting interventions are best managed by step up approach. This essentially includes pigtail catheter drainage of the collection either radiologically or endoscopically depending upon the location of collection and expertise available. One third of them respond with simple pigtail drainage, but the rest may require a graded drainage involving dilatation of tract, debridement and lavage [4,5].

Few collections due to inaccessible location, should be recognized early and dealt with open surgical drainage, else may linger as a persistent source of sepsis. These retroperitoneal collections may not resolve spontaneously and may require multiple sessions of drainage procedures. Hence, pancreatic collections in the posterior pararenal space and in psoas area require an appropriate surgical drainage.

WOPN have been reported earlier to present as retroperitoneal swelling like Inguinoscrotal swellings and psoas abscess. It causes a diagnostic dilemma, if late presentations happen few months following episode of pancreatitis [6]. A missed diagnosis may lead to improper or delayed treatment and sometimes unnecessary surgery.

Our case was a very rare presentation of WOPN as a psoas abscess with classical right lower limb attitude of the patient. We also stress on the importance of monitoring the patient with WOPN after pigtail drainage, as more than half of such patients may require further aggressive drainage, in the absence of which may lead to complications like cholangitis and psoas collection as happened to our patient.

Conclusion

Unusual manifestations of WOPN though rare should be diagnosed and managed early in the course of pancreatitis. Whenever, a step up approach is instituted, patient should be monitored regularly to avoid dangerous late complications.

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