

## **Unusual Lump in Left Groin**

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**Pancreatic pseudocyst is a fluid collection contained within a well-defined capsule of fibrous or granulation tissue or a combination of both. It does not possess an epithelial lining, persists for more than four weeks and may develop in the setting of acute or chronic pancreatitis. The cyst can present anywhere from mediastinum to scrotum and pelvis.**

**We present a case of pseudocyst of the pancreas in the groin, which was treated successfully by percutaneous aspiration.**

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Pancreatic pseudocyst is a fluid filled collection in and around the pancreas and may extend beyond the pancreas. This fluid is activated pancreatic enzymes, inflammatory cells and debris. This complication is not common and up to 10% cyst could be infected<sup>1,2</sup>.

We present a case of infected cyst presenting as mass in the groin which was resolved after percutaneous drainage (PD).

### **THE CASE**

A forty years old man presented to the surgical outpatient with complaint of lump in the left groin of one week duration. There was no history of vomiting, change in bowel habits or trauma. He had mild fever but no cough, night sweats, loss of appetite or loss of weight.

The patient had been discharged from the surgical ward six weeks earlier when he was admitted with history of recurrent abdominal pain and vomiting after consumption of excessive amount of alcohol.

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During the initial admission, he was ill-looking, febrile (39<sup>0</sup>C), pulse 132/min, BP 127/87 mm Hg, abdomen was mildly distended and generally tender, but without rebound tenderness.

Blood investigations showed WBC 12.00x10<sup>9</sup>, neutrophils 81%, serum amylase 1362 IU/L, serum lipase 2346 U/L, blood glucose 2 mmol/L, serum potassium 3.1 mmol/L and serum albumin 31 g/L. Other tests, such as, calcium, renal parameters and serum lipids were within normal range. Ultrasound scan and Computerized Tomography (CT) of the abdomen showed inflammation of the pancreas with fluid around it and in the hepatorenal pouch. A diagnosis of acute pancreatitis was made.

In view of continuous fever, rising white cell count and increasing abdominal tenderness, ultrasound scan guided percutaneous drainage of fluid from the pancreatic bed was done. It showed neutrophils and pus cells; parenteral antibiotics were given for two weeks. The patient was discharged afebrile and the white cell count, serum amylase and serum lipase returned to normal limits, his total hospital stay was 35 days.

US and CT abdomen showed minimal fluid around the pancreas and hepatorenal pouch and no sign of inflammation in the pancreatic bed on discharge.

During the second visit, he was found to be afebrile. Abdominal examination revealed 3x2 cm swelling, 4 cm above the left inguinal ligament, see figure 1. It was oblique in shape, tender and irreducible, the skin overlying the swelling did not show any rise in temperature, translucency test was negative, non-pulsatile; there was thrill on palpation and no audible bowel sounds on auscultation.



**Figure 1: Swelling above the Left Inguinal Region**

There was no evidence of bowel obstruction on clinical examination. The total leucocyte count, serum amylase, serum lipase were within normal limits. There was no clinical evidence of acute pancreatitis.

The clinical diagnosis of a cystic swelling of obscure origin was made, and confirmed by US and CT scan. The CT findings were consistent with pseudocyst of pancreas at unusual position, see figures 2 and 3.

In view of these findings, percutaneous aspiration was done on two occasions five days apart, 60 ml and 30 ml of fluid aspirated. The fluid was purulent, biochemistry showed amylase 4230 IU/L, protein 4 g/dl, there were gram negative bacilli and the culture grew *E. coli*. Appropriate antibiotics on culture and sensitivity were given parenterally for two weeks. The patient had a follow-up US and CT scan after two months which showed complete resolution of the swelling. Follow-up for six months showed no recurrence of the swelling.



**Figure 2: CT Abdomen Showing a Cystic Left Iliac Fossa Mass with Rim Enhancement, Indicative of Infection**



**Figure 3: CT Abdomen Showing the Cystic Mass in the Left Pelvic Inlet**

## **DISCUSSION**

Pancreatic pseudocyst occurs in 10-27% of cases of acute pancreatitis<sup>1,2</sup>. US and CT have increased diagnostic accuracy of these cysts and are invaluable in their follow-up. In acute pancreatitis, there is active tissue necrosis due to leaking of pancreatic juice leading to auto digestion of tissues and spread along the tissue planes from mediastinum to pelvis<sup>3</sup>.

Acute pancreatic pseudocysts are associated with complications, such as, infection, hemorrhage and even death<sup>4</sup>. Pancreatic pseudocyst following recent episode of acute pancreatitis has more chance of resolving irrespective of size. Any cyst that persists beyond six weeks following the attack of acute pancreatitis is unlikely to resolve<sup>5</sup>. The wait and watch policy up to six weeks have been challenged in favor of early drainage<sup>6</sup>. The infection of pancreatic pseudocyst is not uncommon and is usually caused by migration of enteric organisms. The infected cyst can be diagnosed based on the higher grade of echogenicity on US and peripheral enhancement on intravenous contrast CT<sup>7-9</sup>.

Percutaneous drainage (PD) of infected pseudocyst is an accepted mode of treatment with 96% success rate, no recurrence was revealed up to 58 months<sup>10</sup>. The cysts usually resolve in 11-37 days, as found in a large series; cysts arising in chronic pancreatitis are notorious for recurrence if treated with PD<sup>11-13</sup>.

There is no rule of thumb, as far as management of pancreatic pseudocyst is concerned. It varies from conservative management leading to resolution of cyst in 25-39% to percutaneous intervention, endoscopic pancreatic stent placement and internal drainage to bowel by laparoscopy or open surgery<sup>11,14,15</sup>. The cysts are grouped on the basis of pancreatic duct anatomy. Groups I and II with normal duct and without strictures could be treated with PD. Groups III-VII are grossly diseased and the strictured duct communicates with the pseudocyst; drainage procedure leads to high recurrence rate<sup>16,17</sup>.

Pseudocysts following chronic pancreatitis have higher rate of failures after PD. All patients with pancreatic pseudocyst ideally should have MRCP and/or ERCP to delineate the anatomy of pancreatic ducts<sup>16,17</sup>.

The pancreatic pseudocyst can appear anywhere in the body from mediastinum to thigh<sup>18</sup>. It is generally agreed that non-infected cyst less than 6 cm in diameter could safely resolve if treated conservatively<sup>2,5</sup>.

## CONCLUSION

**Pancreatic pseudocyst may follow acute pancreatitis and should be suspected if the swelling persists beyond four weeks. The cysts could be infected and may be diagnosed by ultrasound scan and CT abdomen. Percutaneous drainage is a safe method of treating the infected pancreatic pseudocyst.**

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