

# An Unusual Case of Spontaneous Communication between Pancreatic Pseudocyst and Duodenum - A Case Report

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**Abstract:** *Pancreatic pseudocysts are encountered frequently, but spontaneous communication is seen in less than 3% cases. Perforation into peritoneal cavity, gastrointestinal tract, portal vein, pleural cavity has been reported. Spontaneous rupture of the pancreatic pseudocyst into the surrounding hollow viscera is rare and, may be associated with haemorrhage. In such cases emergency surgical intervention is the mainstay of management. Uncomplicated rupture of pseudocyst has not been reported frequently and is a rare presentation. We present an unusual case of pancreatic pseudocyst with duodenal connection without bleeding. A 45 year- old male with a large pancreatic pseudocyst resulting from a complication of necrotizing pancreatitis came to our hospital with generalized weakness and exertional breathlessness since 1 week. Computed tomography (CT) revealed pancreatic pseudocyst and communication between pseudocyst and duodenum suggestive of spontaneous cysto duodenal fistula. Esophagogastroduodenoscopy (EGD) showed a fistula between pancreatic pseudocyst and duodenum, and the patient recovered without any complication or need for surgical treatment. Patient was managed conservatively*

**Keywords:** Chronic pancreatitis, Cystoduodenal fistula, Pancreas, Pancreatitis, Pseudocyst

## 1. Case Report

A 45 year- old male who is a known alcoholic since 20 years and known case of acute necrotizing pancreatitis with pancreatic pseudocyst (size-4x6x10 cm) and type 2 diabetes mellitus since 3 months on medical management was admitted to our hospital with History of generalised weakness and exertional breathlessness since 1 week. On admission, vitals were stable. On examination there was diffuse tenderness all over the abdomen and pallor present bilateral pitting pedal edema present. Haemoglobin was 6.4g/dL, peripheral smear suggestive of dimorphic anaemia, serum amylase level was 32 U/L (normal range, 20-160

U/L); liver function tests were abnormal. Urine routine-ketone bodies present and protein trace. Other laboratory parameters were within normal limits. On admission, computed tomography (CT) of abdomen revealed a pseudocyst measuring 2 × 3x 5 cm (which had regressed from the previous size) near the head of pancreas along with diffuse pancreatitis and there was communication between pseudocyst and duodenum, suggestive of spontaneous cystoduodenal fistula. Esophagogastroduodenoscopy (EGD) showed a fistula between pancreatic pseudocyst and duodenum. Patient was managed conservatively with supportive measures and patient recovered without complications.

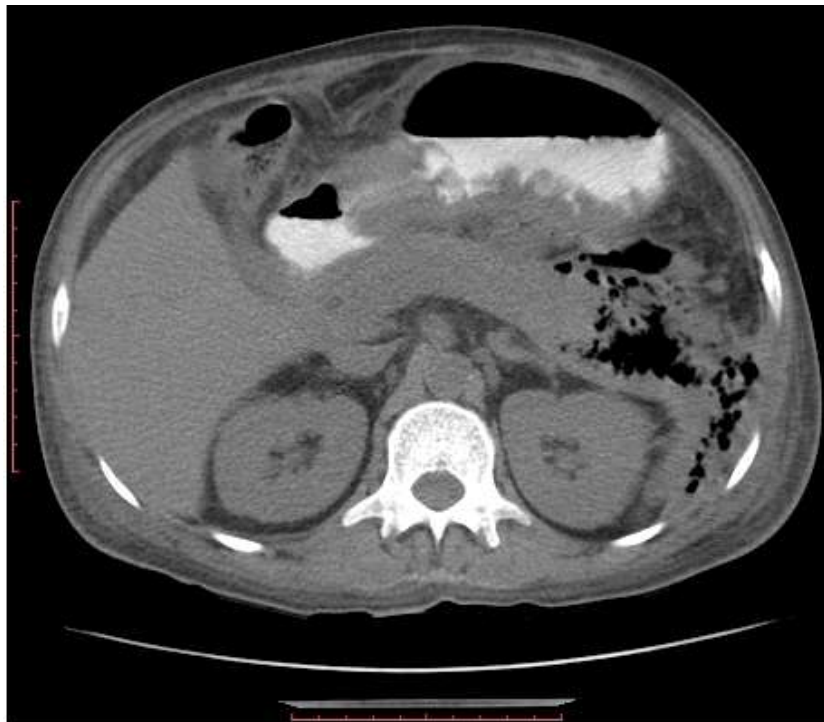


Ugiscopy Showing Communication between Pancreatic Pseudocyst and Second Part of Duodenum

Volume 7 Issue 2, February 2018

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CECT Abdomen Showing Communication between Pancreatic Pseudocyst and Second Part Of Duodenum

## 2. Discussion

According to Revised ATLANTA criteria 2012, moderate and severe pancreatitis is associated with pancreatic pseudocyst<sup>1</sup>.

Pseudocyst pancreas is a collection of fluid which is rich in amylase and other pancreatic enzymes. It is covered by a wall of fibrous tissue which lacks epithelial covering<sup>2</sup>.

Pseudocysts can be seen in 10% of cases of acute pancreatitis and in up to 25% cases of chronic pancreatitis<sup>3</sup>.

The etiological factors in pancreatitis are alcoholism, choledocholithiasis and abdominal trauma<sup>4</sup>.

Duodenum is the common site of communication with pancreatic pseudocysts as it is in close contact with the tissue-disruptive secretions from pseudocysts at the pancreatic head. Bellon et al. observed that the posterior aspect of D2 was the most common site of involvement.

Most of the cases are related to chronic pancreatitis, which are alcohol induced. Stomach is the most common (65%) hollow viscus involved and bleeding is seen in almost two-thirds of cases. Almost 50% cases requires surgical management and about 25% were managed conservatively<sup>3</sup>.

Pseudocyst pancreas is a usual complication of severe pancreatitis, but in less than 3% cases a spontaneous perforation or fistulization has been seen<sup>4</sup>.

Pseudocyst may resolve by many mechanisms. It might regress once inflammatory reaction resolves or it may resolve spontaneously by spontaneous communication with duodenum. In some cases it ruptures into peritoneal cavity<sup>5</sup>.

Most of pancreatic pseudocyst cases resolve spontaneously without definitive treatment pseudocysts of less than 4cm get resolve spontaneously and they have fewer complications when compared with larger cysts. When compared pancreatic pseudocysts in relation to time, acute pseudocysts have a higher rate of spontaneous resolution within first 6 weeks after observation than pseudocysts which have persisted for more than 7 weeks after diagnosis (8%)<sup>2</sup>. pseudocyst sizes of more than 4 cm there is no change in size, morphology has been observed after a period of 6 weeks. Complications of pseudocysts including infections, hemorrhage, compression of large vessels, gastric outflow tract obstruction and biliary duct obstruction, these are the main indications for drainage<sup>2</sup>.

At present, transcutaneous drainage had a rate of recurrence greater than 70% and is indicated only as an emergency procedure in cases of infected cysts and cysts with acute retention of fluid. This is because of associated complication of percutaneous fistula formation<sup>2</sup>.

About 20-40% of pseudocysts develops complications. Treatment options for pseudocysts includes surgical therapy such as decompression of cyst in to small bowel with a pancreatic ductal drainage procedure, percutaneous or endoscopic. 90% success rate was observed with surgical therapy with less than 3% operative mortality<sup>6</sup>.

In conclusion, we reported a case of a patient with pancreatic pseudocyst developed from a complication of necrotizing pancreatitis, which was treated conservatively and patient recovered without complications.

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