

## Giant pseudocyst of the pancreas: A Case Report

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### ABSTRACT

Pancreatic pseudocyst occurs as a common complication of pancreatitis and pancreatic trauma. Pseudocysts larger than 10 cm are termed giant pseudocysts and those more than 20cm are rarely encountered. Smaller pseudocysts may remain asymptomatic and resolve spontaneously. Giant pseudocysts may exert mass effect and the management can be challenging as both conservative and surgical approaches are associated with complications and recurrence. Endoscopic drainage is gaining popularity as the preferred treatment modality over surgical drainage, however, we opted for the latter due to the lack of expertise. We hereby present a case of giant pseudocyst drained surgically with an uncomplicated outcome.

**Keywords:** *Endoscopic drainage; Giant pancreatic pseudocyst.*

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## INTRODUCTION

Pseudocyst of pancreas is a localized collection of amylase rich sequestered pancreatic fluid surrounded by well-defined fibrous wall without epithelial lining.<sup>1</sup> It is one of the most frequent late complications of pancreatitis and pancreatic trauma, with an average incidence between 6.6–20%.<sup>2</sup> Pseudocysts with a diameter larger than 10 cm are termed as giant pseudocysts and those greater than 20 cm have been rarely reported.<sup>3-4</sup> We present a 37 year old male with a giant pancreatic pseudocyst of 20cm in diameter, with an upper abdominal mass at initial presentation.

## CASE REPORT

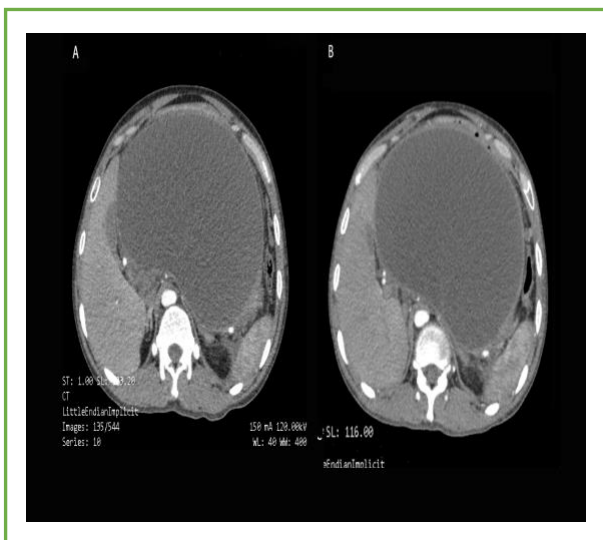
A case presented to the emergency department with the complaint of upper abdominal mass for 10 days, gradually increasing in size and resulting in abdominal discomfort, decreased appetite and nausea. His vitals were within normal limit. The abdominal examination revealed a firm, smooth, non-fluctuating, immobile mass of 15×15cm extending from the right upper quadrant to the left upper quadrant, and not moving with respiration (Fig 1).

The patient had upper abdominal pain a few weeks back, however, he had not sought any medical advice. He had a significant history of alcohol consumption, last intake being two days prior to presentation. There was no history of abdominal trauma, and his past medical and surgical history were not significant.

USG and CECT abdomen revealed a large intra-abdominal cyst of 20cm × 19cm × 14cm (fluid~2997ml) with a maximum thickness of 3.4mm in the lesser sac and subsequently, he was diagnosed to have pancreatic pseudocyst. The patient was discharged following symptomatic treatment and was followed up after six weeks. Repeat CECT abdomen showed a slight increase in size of the mass, measuring 20cm×20cm×15cm (fluid ~3293ml). Maximum thickness was 4.3 mm. The patient was worked up for surgery with pre-operative investigations and pre anesthetic checkup. Peritoneal cavity was opened. There was a large pseudocyst of pancreas located in the gastric bed. About 4L dusky coloured fluid was drained. Cystogastrostomy was done and margin was sutured. Our patient was discharged after 8 days of post-operative stay without any sequelae.



**Figure 1. Mass extending from right upper to left upper quadrant**



**Figure 2. CECT abdomen**

## DISCUSSION

Pancreatic pseudocyst might be asymptomatic or might present with symptoms such as pain, nausea, vomiting, early satiety and abdominal mass.<sup>4</sup> Our patient presented with upper abdominal mass and discomfort. Pancreatic pseudocyst often presents with elevated amylase and lipase levels, although, they may be within reference range.<sup>1</sup> Our patient's amylase and lipase levels were elevated, however, the liver profile was within normal limit.

Pseudocyst can be diagnosed with ultrasonography, CT scan or MRI.<sup>3</sup> In our patient, ultrasound abdomen as well as CECT abdomen were suggestive of pseudocyst of pancreas. CECT abdomen revealed a large intra-abdominal cyst of 20cm×19cm×14cm (fluid~2997ml) at midline in upper abdomen at lesser sac between stomach anteriorly and pancreas posteriorly. The lesion had a smooth wall with maximum thickness of 3.5 mm with minimal wall enhancement and no enhancing solid component or nodule, however, no calcification was seen.

Pancreatic pseudocyst can result in serious complications such as compression of stomach, duodenum, common bile duct, pancreatic duct and large vessels, fluid infection, hemorrhage, and fistula formation.<sup>4</sup> Similarly, in our patient, the lesion had displaced stomach anteriorly and pancreas posteriorly. The head and tail of pancreas were delineated; however, the body was not delineated (compressed by the lesion). Splenic artery and vein were displaced posteriorly. Bowel loops were displaced laterally. Left lobe of liver and gallbladder were also compressed and displaced to the right by the lesion (fig 2).

Asymptomatic pseudocysts up to 6 cm in diameter can be safely observed and monitored with serial imaging.<sup>3</sup> Larger pseudocysts of more than 6cm require drainage when the symptoms persist more than 6 weeks, or if the cyst enlarges rapidly, or if some complication is present.<sup>2</sup> Therapeutic intervention is recommended after six weeks as spontaneous resolution is less likely to occur, and the walls are mature enough to secure internal drainage.<sup>5</sup> Our patient had a large pseudocyst and a study conducted by Bradley EL and colleagues concluded that prolonged observation of large pancreatic pseudocysts beyond 7 weeks greatly exceeded the mortality of elective surgery.<sup>6</sup> Thus after six weeks, laparotomy was done in our patient which revealed a large pancreatic pseudocyst adhered to posterior gastric wall.

The management varies based on local expertise but in general, endoscopic drainage is becoming the preferred approach as it is less invasive than surgery, avoids the need for external drainage and has a high long-term success rate.<sup>1</sup> However, due to lack of expertise, cyst gastrostomy was performed in our

patient. Surgical drainage like cyst gastrostomy may be associated with post-operative complications due to incomplete emptying of cyst as presented in a case report of Johnson and colleagues.<sup>7</sup> However, a research conducted by Pan G et al showed, post-operative complications such as sepsis, hemorrhage, pancreatic fistula, pneumonia were more prevalent in endoscopic drainage compared to surgical drainage.<sup>8</sup> Post operatively, our patient also made a full recovery without any complications, similar to a case presented by Wang and colleagues.<sup>9</sup>

## ACKNOWLEDGMENT

We would like to acknowledge the patient for giving consent to publish this case report

## CONSENT

Case Report Consent Form was signed by the patient.

## CONFLICT OF INTEREST

None

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