

A Rare Case of Pseudopancreatic Cyst of Pancreas in Pregnancy

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Abstract

Pancreatic pseudocyst may be consequences of acute or chronic pancreatitis or trauma is a benign pancreatic disease. Pancreatic pseudocysts complicate 5% of cases of pancreatitis, or fewer than 1 in 60,000 deliveries, and the management of this rare situation is not consistent. A patient who was 33 weeks of pregnancy diagnosed as a case of pseudopancreatic cyst treated with cystogastrostomy in puerperium has been presented. The natural history of pancreatic pseudocysts in pregnant patients seems to be similar to that of non-gravid patients

Keywords: Pregnancy; Acute pancreatitis; Chronic pancreatitis; Pancreatic pseudocyst; Cystogastrostomy.

Introduction

Pancreatic pseudocyst may be consequences of acute or chronic pancreatitis or trauma is a benign pancreatic disease.¹ Pseudocysts develop after disruption of the pancreatic duct with or without proximal obstruction.² Pancreatic pseudocysts complicate 5% of cases of pancreatitis, or fewer than 1 in 60,000 deliveries, and the management of this rare situation is not consistent.³ A patient who was 33 weeks of pregnancy treated with

cystogastrostomy has been presented and relevant literature reviewed.

Case Report

A 19-year-old primigravida at 33 weeks of gestation presented with complaint of abdominal discomfort and lump in the upper abdomen with loss of appetite since one month. There is no history of pain in abdomen or bleeding per vaginam or leaking per vaginam she denied any prior history of pain abdomen, trauma, acute pancreatitis, hyperlipidemia, gallstone disease or alcohol abuse. There was no history of hypertension, diabetes mellitus or any other chronic disease. On examination patient was conscious oriented, pulse rate was 84/min, and blood pressure 110/70 mm Hg. On Per abdominal examination, a lump has been noted in the upper abdomen in the epigastric and left hypochondrial region, measuring around 18 × 14 cm size, cystic in consistency and with mild tenderness. Uterine size was around 32 weeks size, relaxed, cephalic presentation with fetal heart rate of 146/min. Ultrasound of abdomen was showing features suggestive of pseudo-pancreatic cyst with atrophied pancreas with single live intrauterine

cephalic fetus with 32 weeks + 5 days of gestation. Patient was given conservative management with antenatal corticosteroid coverage and was admitted in Dept of surgery for definitive management with regular follow up. Her liver enzymes, amylase, lipase, blood sugar levels and lipid profile were within normal limits with WBC's count of 7800 cells/mm³. On MRI it was showing large unilocular cystic mass lesion 25 × 14 × 16 cm suggestive of pancreatic pseudocyst (Figs. 1,2). Patient went into spontaneous preterm labor at 34 weeks of gestation, did not respond to tocolysis. She was shifted to

labor room following which she underwent normal vaginal delivery. A preterm 34 weeker baby of 2.2 kg with Apgar score of 9 at 1st minute and 5th minute was delivered. Patient was under observation for 48 hours and the duration was uneventful. After two days patient was shifted back to surgery ward and underwent cystogastrostomy after one week. Her histopathological report revealed pseudocyst with surrounding pancreatic tissue. Her postoperative period was uneventful and she was discharged on postoperative day 5 she and her baby continued to do well.

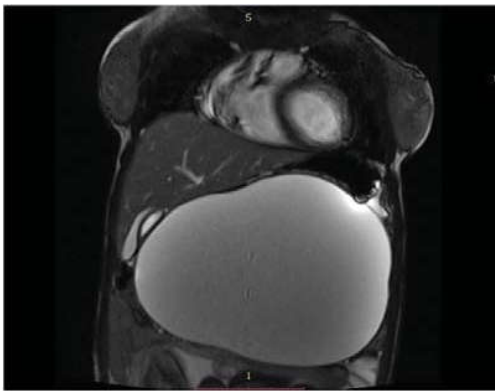


Fig. 1: Coronal section showing well defined cystic lesion having internal T2 hyperintense signal with peripheral thin T2 hypotense rim in the epigastric region

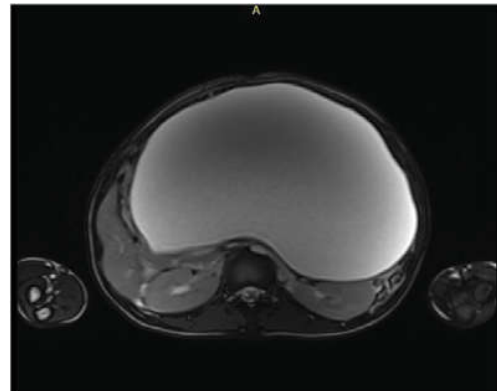


Fig. 2: Axial section showing a large well defined T2 hypertense cystic lesion is seen anterior to pancreas with peripheral T2 hypotense rim causing mass effect pancreas appears atrophic with thinning of the body

Discussion

Pseudocyst of the pancreas is a localized fluid collection surrounded by a wall of fibrous tissue that is not lined by epithelium. Fluid is rich in amylase and other pancreatic enzymes.⁴

The occurrence of pseudocyst is consequences of pancreatitis and the etiology of pseudocysts is similar to the causes of pancreatitis strongly, though pseudocyst formation is less common after acute compared to chronic pancreatitis, and it is more commonly seen after alcohol-induced than after non-alcohol-related pancreatitis. Despite of the etiology of pseudocyst, the incidence is low, 1.6%-4.5%, or 0.5-1 per 100,000 adults per year.⁵ Pseudocysts develop after disruption of the pancreatic duct due to pancreatitis or trauma followed by extravasation of pancreatic secretion with or without proximal obstruction. Our case of pseudocyst there was no history of pancreatitis, alcohol ingestion, trauma or hyperlipidemia.

The clinical picture of pancreatic pseudocyst can vary from asymptomatic patient to nausea, pain in epigastric region, vomiting to major abdominal catastrophe due to complications.⁶ Complications consist of bleeding (usually from splenic artery pseudoaneurysm), infection, and rupture. Chronic complications consist of gastric outlet obstruction, biliary obstruction and thrombosis of the splenic or portal vein with development of gastric varices. Amylase and lipase levels are frequently high, but possibly within reference ranges. Pancreatic pseudocyst during pregnancy is rare.^{1,7,8} Diagnosis is done with clinical, laboratory and radiological studies. Computerized tomography (CT) is the radiographic study of choice for initial evaluation of pancreatic pseudocysts and is twice as sensitive as ultrasonography in detection of pseudocysts.² But during pregnancy it cannot be used. Ultrasonography detects about 85% of pseudocysts.^{2,8} Its use is restricted by obesity and bowel gases; it is useful during pregnancy and in follow up once patient diagnosed pseudocyst by

CT scan. The case was diagnosed and followed by Ultrasonography. In our case MRI was done due to pregnant status. Treatment either conservative or intervention depends on symptoms, age, pseudocyst size, and the presence of complications. If it is smaller than 6 cm and duration for less than 6 weeks have low complication rates.^{2,9,10} The probability of natural resolution after 6 weeks is less and the peril of complications increases appreciably after 6 weeks. If the onset of the cyst is recent, asymptomatic the patient can be followed with imaging to evaluate size and maturation of the pseudocyst.² If pseudocysts is more than 6 cm and present for more than 6 weeks, surgical intervention should be done. Various options are percutaneous drainage, cyst excision and internal drainage. Internal drainage include Roux-en-Y cystojejunostomy, loop cystojejunostomy, cystogastrostomy, and cystoduodenostomy.² Histopathological examination of the cyst wall should be done to rule out cystic neoplasm. Our case is operated in puerperium, the pseudocyst size was 25 × 14 × 16 cm and cystogastrostomy was done.

The natural history of pancreatic pseudocysts in pregnant patients seems to be similar to that of non-gravid patients; however there is concern for increased risk of rupture during vaginal delivery.³ Intervention in pregnancy can lead to preterm labor. Although our patient had preterm vaginal delivery without intervention for the cyst.

Conclusion

The occurrence of pseudocyst is consequences of pancreatitis although in our patient there was no history of pancreatitis or other risk factors. Pseudopancreatic cyst in pregnancy is quite rare phenomenon. The natural history of pancreatic pseudocysts in pregnant patients seems to be similar to that of non-gravid patients; however there is concern for increased risk of rupture during

vaginal delivery. Intervention in pregnancy can lead to preterm labor. Although our patient had preterm vaginal delivery without intervention for the cyst.

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