

CASE STUDY

Rare Case of Intrahepatic Pancreatic Pseudocyst misdiagnosed as Hepatic Abscess

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ABSTRACT

Introduction: Pseudocyst formation is a well known complication of pancreatitis. Intrahepatic pancreatic pseudocyst is very rare event and only about 30 cases have been reported in literature.

We report here a case of 32-year-old male who was previously diagnosed as a case of hepatic abscess. He was referred to our department for ultrasonography (USG) and contrast enhanced computed tomography (CECT) abdomen with complaint of recurrent pain in upper abdomen. On the basis of findings of CECT Abdomen, diagnosis of large intrahepatic pancreatic pseudocyst in left lobe of liver is made.

Conclusion: Intrahepatic pseudocyst should be considered a differential diagnosis of cystic hepatic lesions in the patients with chronic or recent episode of acute pancreatitis. Computed tomography and high level of amylase in the collection plays an important role for diagnosing this complication.

Keywords: Computed tomography, Intrahepatic pseudocyst, Pancreatic pseudocyst, Pancreatitis.

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INTRODUCTION

Pseudocyst formation is a well-known complication of pancreatitis. It can occur anywhere in abdomen and even in mediastinum, depending upon where activated pancreatic enzymes are released and what path they follow.

Common sites of occurrence are body, tail, head of pancreas, lesser sac, perisplenic area, retroperitoneum, and pararenal areas.¹ Intrahepatic pancreatic pseudocyst is a very rare event and only about 30 cases have been reported in the literature.

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We report here the case of a 32-year-old male who was previously diagnosed as a case of hepatic abscess and underwent pigtail drainage. He was referred to our department for ultrasonography (USG) and contrast enhanced computed tomography (CECT) abdomen with complaint of pain in upper abdomen. Based on the findings of CECT abdomen, diagnosis of large intrahepatic pancreatic pseudocyst in left lobe of liver was made.

CASE REPORT

A 32-year-old male presented with pain in upper abdomen associated with vomiting and fever for past 2 months. He was admitted in some other hospital and diagnosed as a case of liver abscess and pigtail was inserted. Patient got some relief and the catheter was removed after 15 days. Patient developed wound with discharge at the site of tube insertion.

He came to our hospital with complaint of recurrent upper abdomen pain and discharging sinus in epigastric region. Patient was nonalcoholic and there was no history of diabetes mellitus, tuberculosis, and hypertension. On examination, patient was icteric, otherwise well-oriented, afebrile with satisfactory general condition. On local examination, abdomen was distended and tender, hepatomegaly was present, wound in epigastrium with discharge (0.5 × 0.5 cm).

Blood investigations show raised serum amylase (126 IU/L) and lipase (563 IU/L). Liver function test was deranged with raised serum alkaline phosphatase (514 IU/L). He was referred to our department for USG whole abdomen and CECT abdomen.

Ultrasonography

Liver was enlarged in size (17.0 cm Cranio-caudal) with a large cystic lesion and with fine echoes in left lobe measuring 16 × 9.5 × 9 cm (Fig. 1). The lesion shows no color flow or solid areas. Fistulous connection was seen between the cystic lesion and skin in epigastric region. Pancreatic head was bulky with heterogeneous echo texture (Fig. 2). Pancreatic body and tail obscured by bowel gases.

Contrast-enhanced Computed Tomography

The CECT reveals a large, nonenhancing, cystic lesion (HU-9) with imperceptible wall involving left lobe of liver

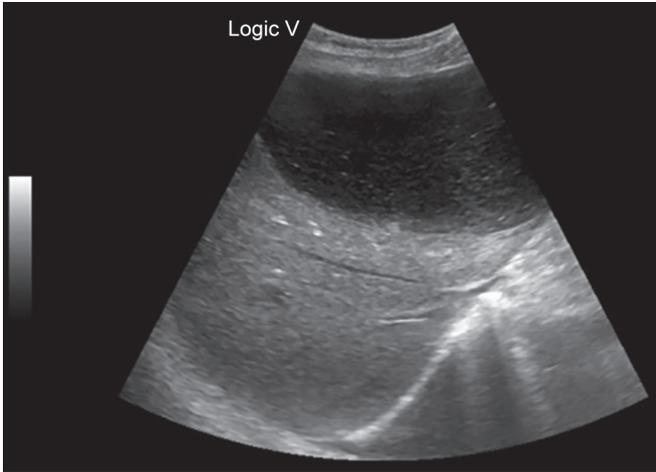


Fig. 1: Ultrasound showing large intrahepatic pseudocyst in left lobe of liver

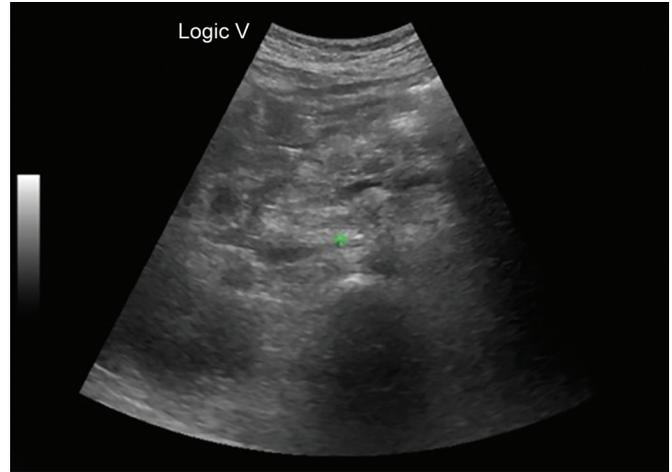
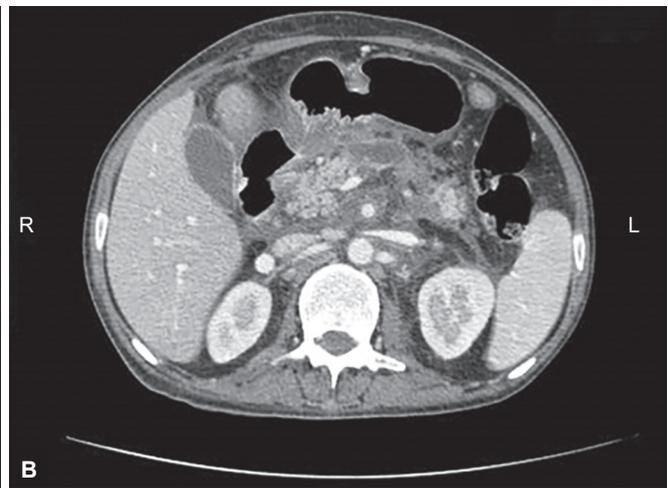
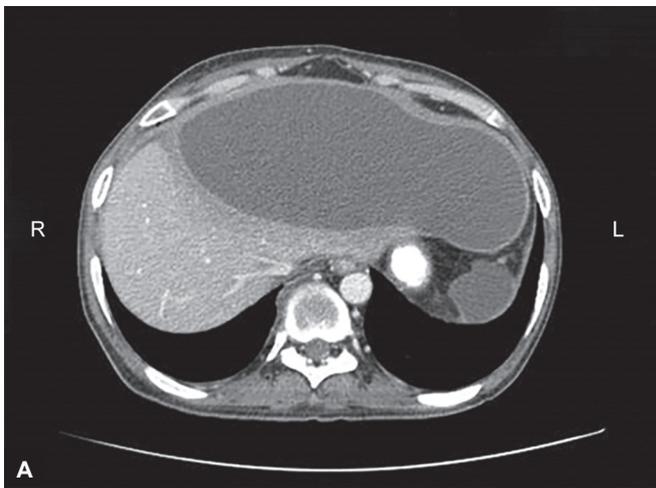


Fig. 2: On USG, pancreatic head was found bulky with heterogeneous echo texture



Figs 3A and B: The CECT abdomen, axial section: (A) Large, nonenhancing, cystic lesion involving left lobe of liver; and (B) pancreas shows heterogeneous enhancement, peripancreatic collection, and fat stranding

and showing communication with peripancreatic collection. Fistulous communication with skin over epigastric region was also noted. Pancreas shows heterogeneous enhancement and a cystic area in region of tail. Multiple areas of peripancreatic collection were seen in lesser sac and retroperitoneum (Figs 3A, B and 4).

Ultrasonography-guided aspiration was done and fluid showed high level of amylase.

DISCUSSION

Pseudocyst formation is a well-known complication of both acute and chronic pancreatitis. Pancreatic



Fig. 4: The CECT coronal image; large, nonenhancing, cystic lesion in left lobe of liver communicating (red arrows) with lesser sac collection

pseudocyst is defined as collection of pancreatic fluid and inflammatory exudate encapsulated by fibrous tissue.¹

It can occur anywhere in abdomen and even in mediastinum, depending upon where activated pancreatic enzymes are released and what path they follow. Common sites of occurrence are body, tail, head of pancreas, lesser sac, perisplenic area, retroperitoneum, and pararenal areas.¹

Intrahepatic pancreatic pseudocyst is a very rare event and only about 30 cases have been reported in the literature. Intrahepatic pseudocysts are usually single and most commonly involve the left lobe, but multiple intrahepatic pseudocysts have also been described.²⁻⁴

The pathophysiology of intrahepatic pancreatic pseudocyst formation can be explained by two mechanisms.^{3,5} The first mechanism consists of the accumulation of the pancreatic juice in the peripancreatic or prerenal space and thereafter eroding through the posterior layer of the parietal peritoneum and into the lesser sac. The lesser sac collection then tracks along the lesser omentum or gastrohepatic ligament toward the liver leading to the formation of left lobe subcapsular collections as seen in our case.

The second mechanism consists of spreading of pancreatic fluid from the head of the pancreas into the hepatoduodenal ligament and porta hepatis along the portal vein and its branches. This results in formation of intraparenchymal collections.^{3,5,6} Subcapsular pseudocysts are located just beneath the liver capsule and are biconvex in shape, while intraparenchymal pseudocysts are located away from the liver capsule and near the porta hepatis branches.⁷

Diagnosing an intrahepatic pseudocyst is difficult as it is usually not considered in the differential diagnosis of cystic hepatic lesions. Moreover, when an intrahepatic pseudocyst develops long after an episode of pancreatitis, or when the pancreas appears normal on imaging studies, it is rarely diagnosed.

The aspiration of amylase-rich fluid and the documentation of a communication with the peripancreatic collection on CECT or disrupted pancreatic duct on endoscopic

retrograde cholangiopancreatography will confirm the diagnosis of an intrahepatic pseudocyst.

There are no definite guidelines on the management of intrahepatic pseudocysts. Surgical drainage, radiologically guided percutaneous drainage/aspiration, and transpapillary stent have been successfully used in the treatment of intrahepatic pseudocysts of pancreas.⁸

CONCLUSION

Intrahepatic pseudocyst should be considered as a differential diagnosis of cystic hepatic lesions in patients with chronic or recent episode of acute pancreatitis. The CT image and high level of amylase in the collection plays an important role for diagnosing this complication.

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