

Pancreatic Hydatid Cyst: A Rare Case of Obstructive Jaundice.

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Abstract: I hereby report a rare case of primary pancreatic hydatid cyst. Hydatid cyst of the pancreas is rare and it can present as pancreatitis or obstructive jaundice as well due to compression of bile duct. A 35-year-old male patient presented with complaints of jaundice and itching all over the body of 20 days duration associated with pain. A mass of size 10 cm × 8 cm was palpated in epigastrium region extending onto the right hypochondrium. Radiologically diagnosed as a pseudocyst of the pancreas, which on operation was diagnosed as hydatid cyst.

Keywords: Jaundice, Hydatid cyst, Pancreas

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I. Introduction

Hydatid cyst involving the pancreas is extremely rare with an incidence of 0.14-2%, especially in endemic countries.^{1,2}

In pancreas, head region is commonly affected (57%) followed by body (24%) and tail (19%).^{3,4}

Routes of spread include local spread via pancreatobiliary ducts and peripancreatic lymphatic invasion and hematogenous dissemination.^{1,3}

II. Case Report

A 35-year-old male patient presented at the surgical outpatient department with complaints of jaundice and itching all over the body of 20 days duration. Pain was also felt over upper abdomen area since 10 days. He was afebrile. Patient is not a diabetic or hypertensive. He has a history of chronic alcohol intake since many years. He is not a smoker.

Physical examination: A mass of about size 10 cm × 8 cm was palpated in epigastrium region extending onto the right hypochondrium.

Laboratory investigations: showed abnormal liver function tests: elevated total serum bilirubin levels of 11.0 mg% with predominant direct bilirubin.

Serum glutamic pyruvic transaminase: 137 (6-40 IU/L), serum glutamic oxaloacetic transaminase: 112 (6-40 IU/L).

Alkaline phosphatase: 156 (20-140 IU/L).

Prothrombin time: Test: 16.8 (control: 12-14 s).

International normalized ratio: 1.4.

Serum amylase and lipase levels were within normal limits.

Other lab investigations including hematological and serological tests were within normal limits.

Ultrasonography (USG) abdomen revealed an enlarged gall bladder. Liver was normal in size with dilated intra-hepatic bile ducts. Common bile duct measures 2 cm in size. A well-defined cystic lesion measuring 9 cm × 8 cm was noted in the head of the pancreas with adjacent calcifications noted in the rest of the pancreas - suggestive of chronic pancreatitis with pseudocyst of the pancreas.

Contrast-enhanced computed tomography (CT) abdomen was done which showed dilated intra-hepatic bile ducts and common bile duct. Gall bladder well distended. Pancreas showed a large cystic lesion of 8 cm × 7 cm size in the head of the pancreas that was compressing common bile duct and gall bladder. Rest of the viscera was normal in size, contour and architecture.

Impression: Acute on chronic pancreatitis with pseudocyst. In view of the diagnosis, the patient was taken up for surgery.

On laparotomy: Stomach was seen pushed to the left side and was stretched in region of lesser curvature and antrum. Lesser sac was opened, and a swelling was found in the region of the head of the pancreas, whose aspirated content showed crystal clear, transparent fluid.

Pseudocyst of pancreas was ruled out, and the possibility of hydatid cyst or simple cyst of the pancreas

was subsequently considered.

Peritoneal cavity was protected with betadine soaked mops,³ a small incision over cyst was done and about 400 ml of clear fluid was aspirated, which contained daughter cysts. Betadine solution was injected into the cyst cavity. Cavity was re-aspirated and all daughter cysts were removed along with germinal layer.

No communication was noted between cyst cavity and pancreatic duct. Omental plugging into the cyst cavity with drain was kept *in-situ* in cyst area, and abdomen closed.

Cyst wall with contents was sent for histopathological examination.

Post procedure was unevenful. Patient was started on oral albendazole 10-15 mg/kg/day with 4 weeks course started. Drug-free interval for 2 weeks,⁵ followed by three such courses were planned.

Patient was discharged on 10th post-operative day with advice of continuing albendazole course as prescribed.

Histopathological examination: Gross: Received multiple pearly white membranous bits altogether measuring 10 cm diameter .

Microscopic examination showed eosinophilic laminated of membranes of cysts with few scattered hooklets. Fibrocollagenous cyst wall with chronic inflammatory cell infiltrate was noted - Consistent with hydatid cyst .

III. Discussion

Clinical presentation: Epigastric discomfort, vomiting and abdominal mass depend on site of involvement in pancreas.^{4,6} Jaundice is due to obstruction of common bile duct due to extrinsic compression by the cyst. Cysts located in body and tails are usually asymptomatic unless complications like infection or rupture supervenes.

Serological test: Enzyme-linked immunosorbent assay for echinococcal antigens is positive in over 85% of infected patients.⁵ Since, the diagnosis was not considered preoperatively, hence was not advised.

Presence of calcification and hyperechoic bands corresponding to daughter cysts along with other organ involvement, especially liver as seen on radiological investigations like USG, CT scan and magnetic resonance imaging leads to suspicion of the diagnosis.⁴

In our case as pancreas was the only organ involved and as the cyst was well defined with adjacent calcifications noted in rest of pancreas, in correlation with history - provisional diagnosis of chronic pancreatitis with pseudocyst of pancreas was considered.

Diagnosis of hydatid cyst of the pancreas are confused with other cystic lesions, most commonly pseudocyst of the pancreas, as has happened in our case, and are rarely established preoperatively.^{3,5}

Surgical resection of the cyst followed by medical treatment with albendazole is preferred the treatment.

Sterilization of cyst with scolicidal agents like betadine is used to prevent intraoperative parasitic dissemination.^{3,5}

Various surgical techniques are available to remove the cysts, depending on the involvement of the pancreatic duct.

If the cyst is not related to the pancreatic, duct pericystectomy with drainage of residual cavity is procedure of choice.^{3,4,7}

In cases with risk of pancreatic fistula, partial pericystectomy or insertion of a stent into duct during surgery is recommended.^{3,4}

Distal pancreatectomy with the splenic conservation is the recommended for hydatid cysts localized to the tail of the pancreas.^{4,5,7}

Complications like acute pancreatitis, cyst rupture, and infection or pressure effects causing portal hypertension due to pressure on splenic vein or hepatic vein or obstructive jaundice due to pressure on common bile duct or ampulla of Vater can occur.

IV. Conclusion

Primary hydatid cyst of the pancreas, though rare, may be the cause of obstructive jaundice and portal hypertension. It should be considered in the differential diagnosis of all cystic lesions of the pancreas, especially in endemic areas. It can present as obstructive jaundice or pancreatitis as well due to pressure effect.

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