Hydatid Cyst of Pancreas

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Abstract

Although India being endemic country for hydatid disease, primary pancreatic hydatid cyst seems to be rarity. Pancreatic hydatid are most often confused with cystic lesions of the pancreas and pancreatic pseudocyst. Diagnosis of hydatid cyst of the pancreas can be confirmed only by surgical exploration and histopathology.

The presentation and related literature is discussed.

Introduction

Primary hydatid cyst of the pancreas is rare, during the last 30 years, less than 40 cases have been reported in journals on Medline.[1] Hydatidosis is an endemic disease caused by the Echinococcus granulosus. The eggs of the worm being excreted in the infected dogs faeces. Intermediate hosts usually are cows, sheeps, pigs, whereas human beings are accidental intermediate hosts. After hatching in jejunum, larvae enters portal system through intestinal mucosa. Final destination in 50% cases being liver followed by lungs, spleen, bone and brain; very rarely breast, muscles and pancreas.

Diagnosing hydatid cyst of pancreas pre-operatively is difficult due to its rarity. Computed tomography (CT) scan is helpful in identifying presence of multiloculation, curvilinear calcification or presence of daughter cysts. However final diagnosis can only be done by surgical exploration and histopathologic examination.

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Case Report

A 21 year old male was referred to us with history of gradual abdominal distension since 2 years. There was no history of pain, any bowel or urinary complaints. Patient had no past history of tuberculosis. Examination revealed a large, non tender lump occupying majority of the upper abdomen. Ultrasonography was suggestive of a large multiloculated cystic swelling, but it could not exactly define the origin of swelling. Computed tomography (CT) scan of abdomen and pelvis showed a very large cystic swelling which was below left lobe of liver and behind stomach, anterior to pancreas measuring 35 cms X 20.8 cms X 10.5 cms, with presence of daughter cyst (Fig. 1). Bowel was displaced to right side of abdomen (Fig. 2). Diagnosis of pancreatic or retroperitoneal hydatid cyst was given.

Midline transperitoneal exploration revealed a large cyst in lesser sac adherent to omentum, transverse mesocolon, and posterior wall of stomach, A scolicidal agent, 3% cetrimide was first introduced and then the cyst was opened, germinative membrane and daughter cysts were seen (Fig. 3) and removed. Cyst was then dissected from surrounding structures and was found to be originating from pancreatic body (Fig. 4). There was no communication with main pancreatic duct (MPD). Sub-total cystectomy was performed leaving only layer of adventia on pancreatic body and the cyst cavity was obliterated with a patch of the omentum.

Post-operative course was uneventful, 6 months course of Albendazole was given. Follow-up after 1 year has shown patient to be symptom and disease free.

Fig. 1 : Computed tomography (CT) scan showing large cyst with daughter cysts.

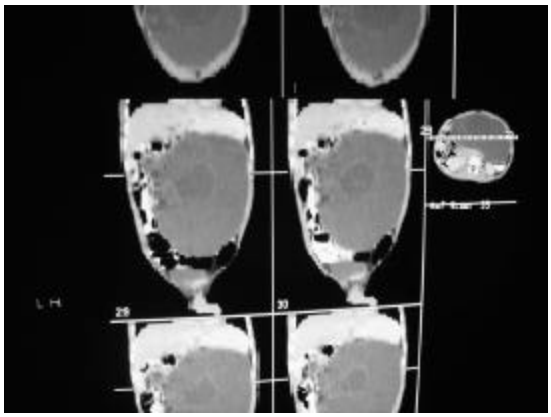

Fig. 2 : Computed tomography (CT) scan showing large cyst displacing bowel to right side of abdomen.

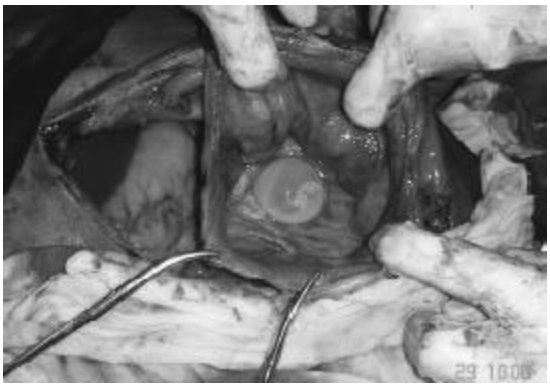

Fig. 3 : Intra-operative photograph showing opened hydatid cyst with germinal layer daughter cysts.

Fig. 4 : Intra-operative photograph showing origin of pancreatic hydatid cyst.

Discussion

Primary pancreatic involvement is found in less than 0. 20% of cases of hydatidosis[2] and to less than 1% even in those countries where the latter is endemic.[3] Pancreatic infestation is mainly by haematological route, or by peripancreatic lymphatic invasion, but very rarely by retroperitoneal spread;[4] even local spread via the pancreatic or bile ducts has been suggested. Clinical presentation varies with size of the cyst and anatomic location. Cyst in head of pancreas can cause obstructive jaundice,[5] acute pancreatitis, recurrent acute pancreatitis[6] or chronic pancreatitis.[7] Cyst located in body can be symptomless or can present with abdominal lump[8] as in our case. Lesions on tail can also present with portal hypertension.[9]

Features suggestive of pancreatic hydatidosis include the cyst wall calcification on abdominal radiography, daughter cysts demonstrated by ultrasound, peripheral eosinophilia and positive hydatid serology.[10] Important serological investigations are hydatid immunoelectrophoresis, enzyme-linked immunosorbent assay,(ELISA) latex agglutination and indirect haemagglutination (IHA) test.[11]

The treatment of hydatid cysts is principally

surgical. However, pre and post-operative 1 month course of albendazole and 2 weeks of praziquantel can help in sterilizing the cyst, decrease the chance of anaphylaxis, and reduce the recurrence rate postoperatively.[12]

According to some authors, surgical exploration of the abdomen is the only way to reach a definitive diagnosis.[13] Depending on the site, various methods of surgical treatment have been used. For cysts located in the body and tail, subtotal cystectomy leaving only adventia behind is preferred as in our case. If cyst is communicating with MPD then distal pancreatectomy is the procedure of choice, or cystoenteric anastomosis can be done. Cysts located in the head of pancreas have been treated by various methods like Whipple's resection,[14] marsupialization and external drainage. Other methods like partial cystectomy or cystoenteric anastomosis have also been used.

We conclude that pancreatic hydatidosis, though very rare, should be considered in the differential diagnosis of cystic lesions of the pancreas in the appropriate epidemiology.

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