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Case Report

Solitary retroperitoneal hydatid cyst masquerading as pseudocyst of pancreas

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ABSTRACT

Primary retroperitoneal hydatid cyst is a rarity. Literature on this topic is sparse with anecdotal case reports. Hence the condition poses both a diagnostic and therapeutic dilemma to the attending surgeon. The objective of reporting this case is to highlight the challenges faced by the surgeon in diagnosing and treating this uncommon entity. A 70-year-old man presented with epigastric pain and discomfort accompanied by abdominal mass extending over the epigastric and right hypochondriac region. CECT revealed a cystic lesion in the retroperitoneal, peripancreatic region. The cystic lesion was diagnosed as a primary retroperitoneal hydatid cyst at the time of surgical intervention. Partial cystectomy was performed due to dense adhesions between head of pancreas and the cyst wall. A high index of suspicion for a primary retroperitoneal hydatid cyst is necessary especially in patients who hail from rural agricultural areas. CECT is diagnostic and provides information regarding site, size, nature and relationship to the adjacent organs and blood vessels. Complete cystectomy is the treatment of choice. However, if dissection is difficult then a partial cystectomy with utmost precaution to prevent spillage of contents is the best option.

Keywords: Retroperitoneal, Hydatid, Cyst, Treatment

INTRODUCTION

Primary retroperitoneal hydatid cyst is a rare condition. Lockhart and Sapena reported this as a distinct entity in 1958.[1,2] Subsequently there are anecdotal reports of primary retroperitoneal hydatid cyst.[3,4] Extra hepatic hydatid disease continues to be an asymptomatic disease until the cyst assumes a very large size causing pressure symptoms or rupture. Cystic lesions in the retroperitoneal region pose both a diagnostic and therapeutic challenge. Hence this case of primary retroperitoneal hydatid cyst is presented in order to highlight the diagnostic and surgical challenges faced during the course of its treatment.

CASE REPORT

A 70-year-old man presented with a brief history (1 week) of upper abdominal pain and fullness. Patient also gave history of few episodes of vomiting. However, the bowel and urinary bladder habits were normal. Patient did not have any other symptoms. On general examination there was no icterus or pallor. Vital parameters were within normal limits. Per abdominal examination revealed a rounded mass in the epigastrium and right hypochondriac region (Figure 1). The mass was fixed and its intraperitoneal or retroperitoneal location could not be ascertained. Laboratory investigations were within normal limits. A CECT (Contrast enhanced computed tomography) was done which revealed a large cystic mass abutting the head of pancreas. There was no communication with the pancreatic duct. There were no internal septations or echoes (Figure 2). A provisional diagnosis of pseudocyst of pancreas was made. The patient underwent exploratory laparotomy. After opening the lesser sac, a large cystic mass (15 cm in diameter) was found densely adherent to the head of the pancreas and superior mesenteric vessels (Figure 3). The cyst was dissected free from the superior mesenteric vessels,

splenic vein, the neck and body of the pancreas. Medially the duodenum was released and superiorly the stomach was dissected free. In the view of the adhesions to the pancreas, the cyst was aspirated and sterilized by injecting hypertonic saline. Subsequently it was aspirated and then opened taking utmost care to prevent spillage of contents. On opening the cyst, a glistening white membrane diagnostic of hydatid cyst was seen. A major portion of the cyst was dissected from the surrounding structures leaving behind a small wedge of the cyst wall which was densely adherent to the pancreas (Figure 4). Exploration of rest of the abdominal cavity, liver and spleen didn't reveal any other lesion. A tube drain was placed in the lesser sac. Post-operatively the drain was removed on the fourth day. Staple removal was done on the twelfth post-operative day. There was complete recovery of the patient with uneventful post-operative course. The patient was started on albendazole for a period of 4 one-month cycles after discharge from hospital. The patient has been following up and is symptom free.

Figure 1: Abdominal mass causing fullness in the epigasrtrium.

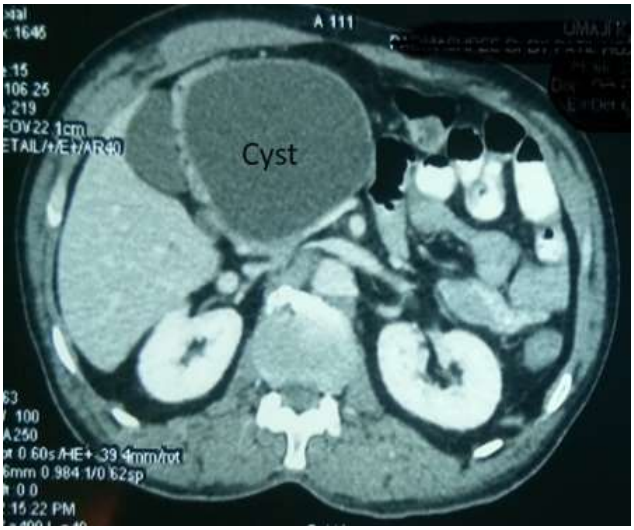

Figure 2: CECT showing a retroperitoneal cyst devoid of internal septations and echoes.

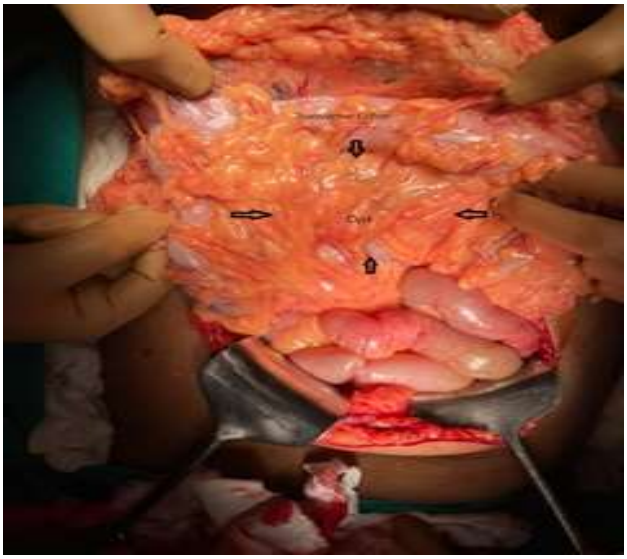

Figure 3: Intraoperative photo of location of the cyst.

Figure 4: Cyst aspirate, hydatid membrane (endocyst) and resected cyst wall.

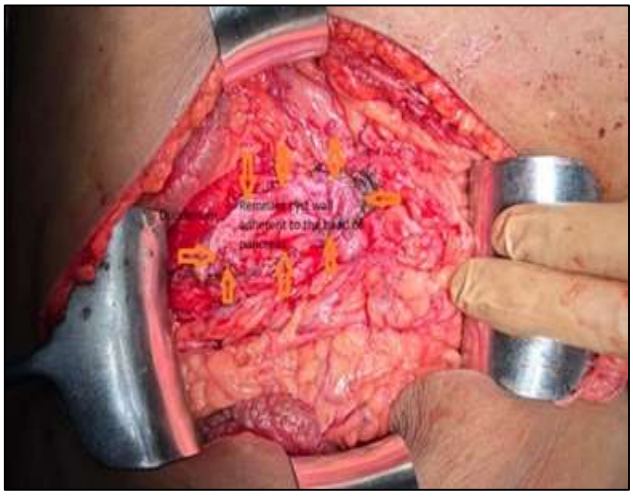

Figure 5: Residual cyst wall adherent to the head of pancreas.

DISCUSSION

Hydatid disease is a zoonosis caused by the parasite *Echinococcus granulosus*. Human beings are an accidental host. Hydatid disease is commonly seen in the liver followed by the lung due to the filtration function performed by these organs. A primary hydatid cyst in the retroperitoneum is extremely rare.[4] Hence establishing a diagnosis of a retroperitoneal hydatid cyst poses the greatest challenge. In the case presented, the cyst was abutting the head of pancreas closely simulating a pseudocyst of the pancreas. However, there was no history of pancreatitis. This added more difficulty in diagnosing the etiology of the cyst. The CECT did not reveal classical septations and hyperechogenic matter in the cyst typical of a hydatid cyst.[5,6] Therefore, there was no clinical suspicion on arriving at differential diagnosis of hydatid cyst preoperatively. The diagnosis of hydatid cyst was finally established during the course of exploratory laparotomy. Once the diagnosis is established intraoperatively the next challenge is the choice of surgical procedure.[6-8] In extrahepatic hydatid cysts complete cystectomy is procedure of choice. However, dense adhesions to multiple organs and major vessels precludes this choice of surgical intervention. This was experienced during the course of surgery in the case presented. The cyst could be dissected free from duodenum, stomach and superior mesenteric and splenic vein. However, it was densely adherent to the head of pancreas. Aspiration of the cyst especially in the retro pancreatic region helps in assessing the true nature of the cyst. In the case presented complete isolation of the cyst was done preceding aspiration. Hypertonic saline irrigation of the cyst done with an aim to render the cyst sterile and devoid of infective parasitic material.[7,8] Subsequently the cyst wall was incised. The typical glistening white endocyst was seen collapsing within the cyst. This was carefully removed. In view of dense adhesions to the head of pancreas, the portion of the cyst adherent to the pancreas was left behind with removal of the remaining part of the cyst wall. The wedge of cyst wall adherent to the pancreas which was left behind was completely cauterized (Figure 4). It is safe practice to place a drain to ensure that no collection originating from a pancreatic fistula caused by dissection of the pancreas develops.[9] In the case presented the drain was removed after 72 hours. There was complete recovery of the patient. The patient was started on albendazole therapy comprising of 400 mg BD for 28 days followed by repeat of 3 more cycles. This is to prevent development of any disseminated hydatid cyst.[10,11]

CONCLUSION

Primary retroperitoneal hydatid cyst should be suspected in patients hailing from endemic areas or whose occupation involves animal husbandry. CECT confirms the exact location and the adherence to the adjacent viscera and vessels. Careful aspiration, sterilization of the cyst followed by excision is the main stay of surgical treatment. Complete cystectomy is the treatment of choice. However, in circumstances where there are dense adhesions to adjacent organs or major vessels, a subtotal cystectomy is an acceptable option.

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