CASE REPORT

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Hydatid cyst of the pancreas: A case report and brief review

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A 45-year-old male farmer had noticed a swelling of the left side of his hypochondrium that persisted for six months. He had no history of severe abdominal pain, jaundice, fever, or weight loss. On evaluation, the patient was found to have hydatid cyst of the pancreas. He was managed surgically. In this case report, we emphasize the preoperative diagnosis in hydatid cyst of the pancreas.

Key words: Hydatid cyst, pancreas, ELISA

Pankreasın hidatik kisti: Vaka takdimi ve literatürün kısaca gözden geçirilmesi

Kırkbeş yaşında erkek çiftçi sol hipokandrium bölgesinde son altı ayda şişlik geliştiğini farketmiş. Hikayesinde ciddi karın ağrısı, sarılık, ateş veya kilo kaybı bulunmamaktaymış. Değerlendirmesinde, hastanın pankreasında hidatik kist olduğu tespit edildi ve cerrahi olarak tedavi edildi. Bu vaka takdiminde pankreas yerleşimli hidatik kistin cerrahi öncesi tanısı vurgulanmıştır.

Anahtar kelimeler: Hidatik kist, pankreas, ELISA

INTRODUCTION

Hydatid disease is caused by the cystic stage of *Echinococcus granulosus*. Most hydatid cysts occur in the liver (59–75%), followed in frequency by the lung (27%). Involvement of the kidney (3%), bone (1–4%) and brain (1–2%) is rare. Other sites, such as the heart, spleen, pancreas, and voluntary muscle, are very rarely involved, virtually no site is immune (1). The reported incidence of hydatid cyst of the pancreas is 0.25% (2).

CASE REPORT

A 45-year-old male farmer had noticed a swelling of the left side of his hypochondrium that persisted for six months. He had no history of severe abdominal pain, jaundice or fever. There was no history of loss of appetite or weight loss. On examination, the patient was conscious and oriented. Icterus, lymphadenopathy and edema were absent. Examination of his abdomen revealed a swelling that measured 5x6 cm. The swelling was smooth and cystic. There was no bruit on auscultation. The results of the systemic examination were normal. He had normal levels of hemoglobin, white cell count and erythrocyte sedimentation rate. Tests of kidney and liver function were normal and serum amylase levels were not increased. His chest X-ray was normal. On ultrasound examination, there was a 7x6 cm swelling surrounding the pancreas. The liver, gallbladder and other organs were normal. His abdominal computed tomography (CT) revealed a cyst in the tail of the pancreas but the pancreatic duct was not dilated. The cyst was 5x6 cm in diameter, and had jagged margins but did not contain daughter cysts. All other

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organs were normal (Figure 1-2). No additional cystic lesions were seen in any other organ. IgG antibodies to E. granulosus were detected by enzyme-linked immunosorbent assay (ELISA). The patient was given albendazole 15 mg/kg peri operatively, and distal pancreatectomy and enucleation of the cyst with proper precautions were done to prevent anaphylaxis. Splenectomy was also performed and hemostasis was achieved. A drain was left in place after the procedure. Histopathology was suggestive of hydatid cyst. The patient had high blood sugars postoperatively and was managed with insulin subcutaneously. He had an uneventful course. He was discharged from the hospital after eight days. The patient's blood sugars are under control with insulin. The patient was monitored for six months in our outpatient department.

Figure 1. CT scan abdomen of the patient showing hydatid cyst in the tail region of pancreas.

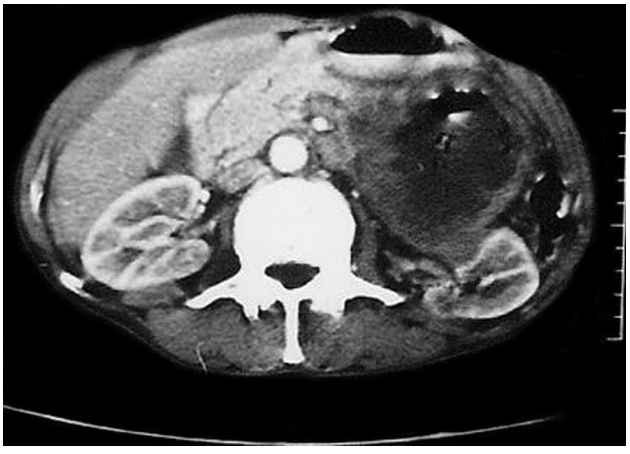

Figure 2. CT scan abdomen showing hydatid cyst in pancreatic tail region with jagged margins and no daughter cysts.

DISCUSSION

Primary hydatid disease of the pancreas is indeed rare. According to Dahniya et al. (3), it occurred in only 1 of 357 cases of hydatid disease over a 20-year period. Due to increased travel and population migration, all clinicians should be familiar with this disease that used to be endemic only in certain areas of the world. Most hydatid cysts are asymptomatic and are diagnosed incidentally. Abdominal pain, discomfort and vomiting are the primary symptoms. The patient may present with obstructive jaundice, weight loss, an epigastric mass, and/or recurrent acute pancreatitis. Definitive diagnosis can be made only at surgery. ELISA is used to differentiate a hydatid cystic lesion from other cystic lesions in the pancreas, with a specificity of 85%. The differential diagnosis of hydatid cyst of the pancreas includes pseudocyst, serous cystadenoma and mucinous cystic neoplasm. A hydatid cyst and a pancreatic cystic tumor need to be distinguished. Endoscopic ultrasound (EUS) imaging can provide characterization of cystic lesions of the pancreas. While EUS morphology alone has limitations regarding definitive diagnosis fluid aspirates can help in differentiating malignant cystic lesions. Comparison of radiology with serology confirmed a good correlation between the two methods. Nevertheless, serology is more specific but less sensitive than imagery (4). Imaging findings range from purely cystic lesions to solid-appearing masses. Sonography is the most sensitive technique for the detection of membranes, septa and hydatid sand within the cyst. Ultrasound may detect floating endocyst membranes inside the cavity, which are highly specific for hydatid disease. Complete detachment of the membranes inside the cyst is referred to as the water lily sign. Results of sonography and CT scan are similar. Cyst fluid usually demonstrates water attenuation (3-30HU), and calcification is easily detected by CT scan. Magnetic resonance imaging (MRI) shows the characteristic low-signal intensity rim of the hydatid cyst on T2–weighted images. MRI is superior in demonstrating irregularities of the rim. These irregularities represent incipient detachment of the membranes (5). Hydatid cyst was found in the tail of the pancreas of our patient. Hydatid cysts are known to occur in any region of the pancreas. Safioleas et al. (6) reported in their series of five hydatid cysts that the majority of cysts were found in the tail region of the pancreas. Krige et al. (7) reported that of 280 hydatid cysts, 4 patients had pancreatic hydatid cysts and all were located in the head region of the pancreas.

Treatment options depend upon the location of the hydatid cysts. Hydatid cysts in the tail of the pancreas have been successfully treated with distal pancreatectomy, while cysts in the body and head of the pancreas have been treated with proper evacuation, pericystectomy and omentoplasty (6). Successful ultrasound-guided drainage of a hydatid cyst in the pancreatic head region was reported by Yattoo et al. (8) in a patient with obstructive jaundice. Angelescu et al. (9) reported endoscopic retrograde cholangiopancreatography (ERCP) and mini-sphincterotomy in a patient with cholangitis due to pancreatic hydatid cysts before definitive surgery for the hydatid cyst.

We conclude that hydatid cyst of the pancreas should be considered in the differential diagnosis of cystic lesion of the pancreas, and surgery offers complete cure of the disease.

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