Left pancreatectomy for primary hydatid cyst of the body of pancreas

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Summary

Hydatid disease is a considerable health problem Worldwide. Primary hydatid disease of the pancreas is very rare. We report the case of a 30-year-old woman who presented with abdominal pain and an epigastric mass. A diagnosis of hydatid cyst of the pancreas was established by ultrasonography before surgery. The treatment consisted of a distal pancreatectomy. The postoperative evolution was uneventful. Hydatid disease should be considered in the differential diagnosis of all cystic masses in the pancreas, especially in the geographical regions where the disease is endemic. Surgical removal remains the main form of definitive treatment.

Introduction

Hydatid disease, caused by the larval stage of the parasite Echinococcus, is a considerable health problem Worldwide. Humans happen to be accidental intermediate hosts. Although the disease can involve any organ, the liver is the most common organ involved and, together with the lungs accounts for 90% of the cases. Other sites of involvement (Less than 10%) are: muscles, bones, kidneys, brain, and spleen (1). Pancreas is affected in 0.25–0.75% of adult cases, the mode of infestation being hematogenous, via pancreatic or bile duct as well as lymphatic (1).

Case Report

A 32 years Tunisian female presented with complaint of upper abdominal discomfort of 3 months duration. She did not complain of jaundice or vomiting. Physical examination revealed a 16 cm mass in the epigastrium. Ultrasound was suggestive of a large hydatid cyst, containing a few daughter cysts, involving the left lobe of the liver. Hydatid serology was positive. Liver function tests revealed serum bilirubin of 5 mg/dl and alkaline phosphatase of 92 u/l. At laparotomy we disocovered an hydatid cyst within the body of the pancreas. It destroyed the parenchyma of the pancreas.

There was a thin pericystic wall. We punctured the cyst and aspirated its contents (Figure 1). Then, the cyst was removed by a left pancreatectomy (Figure 2). The region was drained and the abdomen closed. Postoperative evolution was unremarkable with respect to development of pancreatic fistula.

Discussion

Pancreatic location of hydatid disease is rare (less than 1%) compared to the other sites of hydatid disease (1, 2). Clinical presentation varies according to the anatomic location of the cyst. In the case of the neck or the tail of the pancreas, abdominal pain, discomfort and vomiting are the main clinical symptoms. Ultrasonography will typically demonstrate a cyst with a wall of varying thickness. Computed tomographic findings, such as rounded cystic lesions with curvilinear calcification may allow the diagnosis to be made in the appropriate clinical setting (3). In our case, a computed tomography was not indicated because the ultrasonography findings were characteristic. The most common differential diagnosis of hydatid cyst is the presence of a serous cyst adenoma. Though very rare, pancreatic hydatidosis should be considered in the differential diagnosis of cystic lesions of the pancreas in the appropriate epidemiological setting like Tunisia. Multiple surgical procedures of hydatid cyst in the body of the pancreas are possible. First, a conservative strategy involving the resection of the protruding dome may be pursued (4). However, a pancreatic fistula may develop after this procedure when there is communication between the cyst and the pancreatic duct. When this happens, a Roux-en-Y pancreaticojejunostomy is recommended (5). A more radical procedure such as a distal pancreatectomy (6,7) as performed here, is

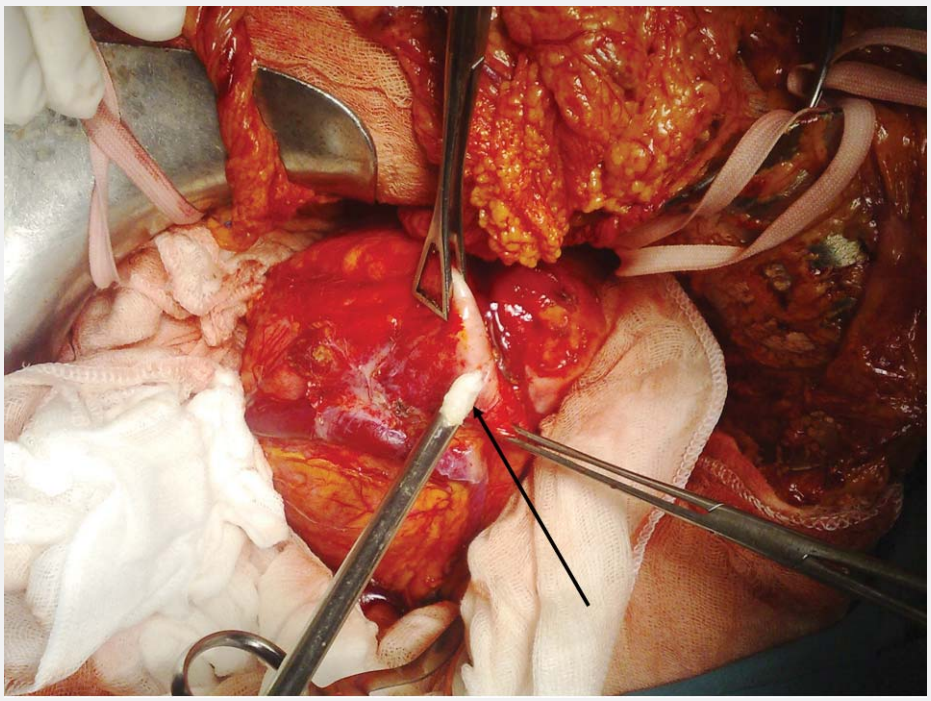

Figure 1: Operative photograph showing puncture and aspiration of the parasites.

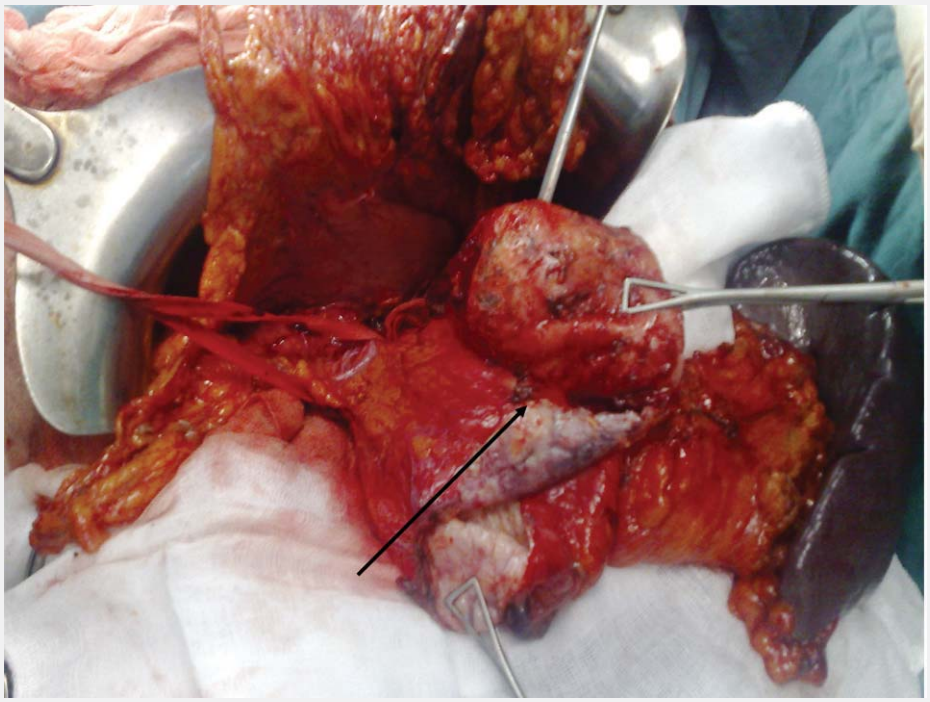

Figure 2: Operative photograph showing a specimen of the left pancreatectomy.

another option. Even this procedure has a low risk for mortality, morbidity and development of diabetes in the long-term. There is good reason to accomplish a distal pancreatectomy for a malignant tumor, but for a benign disease, such as hydatid cyst, normal tissue of the pancreas may be wasted in extirpating the segment containing the cyst. Finally, Central pancreatectomy has recently been introduced as the best method for the surgical management of pancreatic hydatid cysts located in the body and neck region (8-11). The rationale for a central pancreatectomy is to remove the cystic lesion, preserve functional parenchyma and avoid major pancreatic resection. Thus, there is no risk of diabetes or exocrine insufficiency and the upper digestive and biliary anatomy is maintained with consequent digestive, immunologic and coagulative advantages. Recurrence is one of the major problems in the management of hydatid disease. We believe that the most effective method for preventing postoperative recurrence is radical surgery. A central pancreatectomy may have sufficed.

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