Case Report

Pancreatic Fistula Following Surgery of Primary Pancreatic Hydatid Cyst Causing Pancreatitis

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ABSTRACT:

BACKGROUND:

Primary pancreatic hydatid cyst is rarely encountered and difficult to differentiate from pancreatic cystic neoplasm.

THE AIM:

Of this case report is to discus the mode of presentation and best management of this condition.

CASE REPORT:

A twenty-eight years old male, presented with recurrent upper abdominal pain of three years duration. The pain was radiating to the back and associated with vomiting and low-grade fever.

The ultrasound as well as CT scan with oral and I.V. contrast revealed that there was a solid-cystic mass in the tail of the pancreas suggesting of pancreatic cystic tumors. Laparotomy revealed pancreatic hydatid cyst, which was communicating with pancreatic duct. The patient treated by endocystectomy, which was complicated by pancreatic fistula.

CONCLUSION:

Pancreatic hydatid cyst should be kept in mind in any cystic lesion of pancreas.

This disease could be treated by endocystectomy or partial pancreatectomy.

KEY WORDS: Hydatid disease, Pancreatic fistula, Pancreatitis .

INTRODUCTION:

Hydatid disease can affect any part of the body from the crown to the big toe and no tissue is immune except hair, nail and teeth, however, liver are affected in 75-80% of the cases [1,2,3].

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This serious disease is caused by larval stage of Echinococcis granulosis, which is belong to Taenea family. It occurs through out the world but endemic in Mediterranean, Middle East, South America, Austria, South Africa, and Eastern Europe [2]. Although hydatid disease is common in Iraq but primary hydatid cyst of the pancreas is rarely encountered, and few cases were reported [4].

We report a rare case of primary pancreatic hydatid cyst, which was communicating with the main pancreatic duct that causes recurrent acute and chronic pancreatitis.

CASE REPORT:

A twenty-eight years old male, presented with recurrent upper abdominal pain of three years duration. The pain was radiating to the back and associated with vomiting and low-grade fever, these attacks were subsided after one or two days later. During the last six months the pain became more severe and associated with watery diarrhea and weight loss. On examination, there was nothing significant except mild tenderness at epigastric region. The investigation revealed **PCV 47, WBC 10.5X10^9/L**, esinophil 5%, neutrophil 75%, **ESR** 75mm/h, TSB 14mmol/L, Alk.ph 87IU/L. Abdominal ultrasound revealed multiloculated cyst 11.2X6cm in the body and tail of the pancreas with other mass in the head of the pancreas measuring 3X5cm, which was suggestive of pancreatic cystic neoplasm (cystadenoma, cystadenocarcinoma) or pancreatic pseudocyst. Abdominal CT scan with oral and I.V. contrast revealed that there was a solid-cystic mass, hypodense, 8X6cm with multiple septae at the body and tail of the pancreas, and other hypodense mass at the head of pancreas measuring 5X4cm. The picture was suggestive of pancreatic cystadenoma or pancreatic pseudocyst (figure 1).

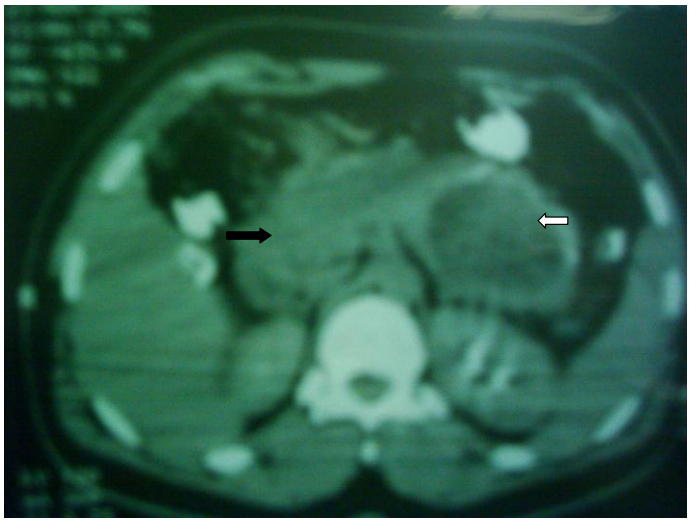

Figure 1: CT scan of the abdomen revealed cystic mass (white arrow) in the body and tail of the pancreas with other hypodense mass (black arrow) at the head of the pancreas.

The patient was explored through an upper midline incision, after mobilization of the spleen medially; there was a cystic mass at the body and tail of the pancreas measuring about 10cm. in diameter pointing mainly posteriorly. Aspiration revealed turbid greenish-white fluid and the laminated membrane expelled suddenly (figure 2). The cyst was completely evacuated and irrigated with normal saline and a tube drain was left inside the residual cavity. In addition to that, there was a diffuse enlargement of the head and neck of the pancreas but without definite mass. Incisional biopsy as well as fine needle aspiration (FNA) was taken from the head of the pancreas. Post-operatively, the patient passed through uneventful recovery but on the third post-operative day there was a discharge of a clear whitish fluid about 500cc/24h from the intracystic drain. The fluid analysis revealed that it is of exudative type with high amylase level (10350 iu/1), so the diagnosis of pancreatic fistula was proven. The patient was kept on fatty free diet and subcutaneous injection of octreotid 100µg/8hours.the patient was discharged home on the 8th postoperative day. Two weeks later there was no fluid discharge from the drain, which was removed.

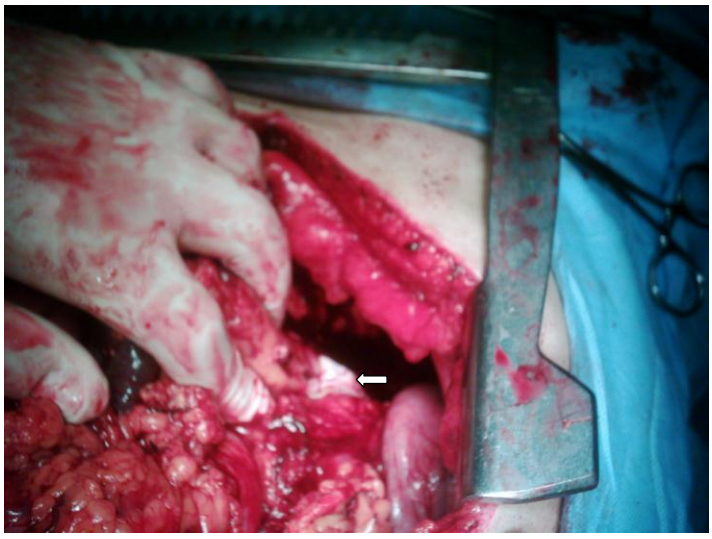

Figure 2: Operative photograph showed the laminated membrane expelled form the cyst in the tail of the pancreas (arrow).

The histopathological study of the pancreatic head biopsy revealed chronic non-specific inflammation and fibrosis (figure3).

DISCUSSION:

Primary pancreatic hydatid disease rarely occurs even in endemic areas. Al-Bahrani et al reviewed 791 patients with abdominal hydatidosis and they found that only 0.4% of abdominal hydatid cysts were found in the pancreas [4], while Nazif Erkan et al report that primary pancreatic cyst is account 0.19-2% of all hydatid cases[5]. About 70-90% of pancreatitis is caused by either biliary tract disease or to alcohol intake [6-8]. Recurrent acute pancreatitis due to hydatid cysts is extremely rare, as far as we know there were only four cases reported in the literatures but no case was found in the English medical literatures [9-12]. The possible sources of infestation of the pancreas by hydatid cyst might be hematogenous dissemination, local spread via pancreatobiliary ducts or peri-pancreatic lymphatic invasion [13]. The clinical presentation is usually due to the pressure effect of the cyst on adjacent structures and depends largely on the size and anatomic location of the cyst.

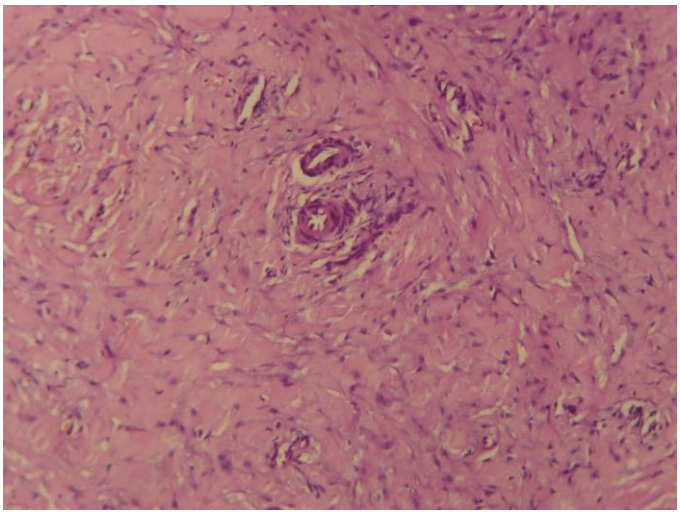

Figure 3: Histopathological picture of the pancreatic head biopsy showing features of chronic pancreatitis.

It is found that 50% of pancreatic hydatid cyst is localized at the head ([14,15], and the patient may present with jaundice [16]. But when the cyst is localized at the body and tail of the pancreas, it may present with recurrent abdominal pain or features of recurrent pancreatitis [9].

Partial duct obstruction, along with the stimulation of pancreatic secretion, produces a pancreatic inflammation. Duct obstruction of short duration may cause acute pancreatitis, but when it persistent over months or years, it is a recognized cause of chronic pancreatitis [8-12], as what happened in this case. Although the cystic lesion of the pancreas is easily identified by US or CT.scan, but the diagnosis of hydatid cyst of the pancreas is rather difficult and rarely established pre-operatively unless the hydatid disease is suspected especially in endemic area [9,11,12]. The hydatid cysts are easily confused with cystadenoma, cystadenocarcinoma or pseudocyst of the pancreas [17].

In the present case, abdominal ultrasound as well as the CT scan of the pancreas (Fig.1), failed to diagnose the hydatid cyst of the pancreas preoperatively, but both suggest cystic neoplasm or pseudocyst of the pancreas.

The treatment of hydatid disease of the pancreas is either by partial pancreatectomy, or endocystectomy [5,16,18] according to the site and size of the cyst. If the cyst is communicating with the pancreatic duct, a stent better to be inserted in the duct during surgery, otherwise cysto-gastrostomy might be the procedure of choice [9,18]. In this case the cyst was infected and it was treated by endocystectomy with drainage of the residual cavity. Post operatively, pancreatic fistula was developed and it was closed spontaneously by conservative treatment after two weeks.

CONCLUSION:

Hydatid cyst of the pancreas is extremely rare condition but it may be a causative factor for recurrent pancreatitis and should be kept in mind in any cystic lesion of pancreas.

This condition could be treated either by endocystectomy or partial pancreatectomy.

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