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Case Report

Primary Hydatid Cyst of Pancreas: Case Report

Sumita Pradhan*, Rudra Dahal, Suman Phuyal, Bikal Ghimire and YP Singh

Department of Gastrointestinal and General Surgery, Tribhuvan University Teaching Hospital, Nepal.

***Corresponding Author:** Sumita Pradhan, Department of Gastrointestinal and General Surgery, Tribhuvan University Teaching Hospital, Nepal.

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Abstract

Introduction: Hydatid disease is caused by the larval stage of Echinococcusgranulosus. Pancreatic hydatid cyst (PHC) is very rare with incidence of 0.14% - 2%, however it is an endemic disease in many parts of the world.

Case details: A 66-year-old lady presented with mild epigastric pain for last 3 months. Systemic examination was normal. Ultrasonography (USG) and Contrast Enhanced Computed Tomography (CECT) revealed a 4 × 4.1 × 3.4 cm cystic lesion in the pancreatic head showing communication with the dilated main pancreatic duct. During exploration, it was found to be a hydatid cyst for which a partial cystectomy with Roux en Y cysto-jejunostomy was done. Histopathological biopsy confirmed Hydatid cyst.

Discussion: PHC is a rare entity. Most common mode of spread is hematogenous. Cysts in pancreatic head can present as obstructive jaundice. USG, CT and Hydatid serology can help in diagnosis and monitoring recurrence. Surgical exploration is the treatment of choice.

Conclusion: PHC can masquerade as pseudocyst or cystic neoplasm of pancreas. It should always be considered in the differential diagnosis of cystic pancreatic lesion in patients from endemic regions.

Keywords: Hydatid Cyst; Pancreatic Hydatid Cyst

Introduction

Hydatid cyst is the larval cystic stage of Echinococcusgranulosus. Dogs are the definitive host, sheep and goats are the intermediate host and man is its accidental host [1]. Hydatid disease is an endemic condition in several parts of the world. Hydatid cysts can be found in almost any organ of the body but the most common sites are liver (50% - 77%), lung (15% - 47%),spleen (0.5% - 8%), and kidney (2% - 4%) [2]. Pancreatic location of hydatid disease is very rare with an incidence of less than 1% [3]. We report a case which presented with epigastric pain and cystic pancreatic mass.

Case Report

A 66-year lady, non-smoker and non-alcoholic, presented to our outpatient department with abdominal pain associated with nausea of 3 months duration.The pain was insidious in onset, intermittent, non-progressive of mild grade with no aggravating or relieving factors. There were no other significant systemic complaints. She did not give any history of similar complaints, trauma or pancreatitis in the past. Physical examination was unremarkable with no positive findings.

Patient was being treated as gastritis without much improvement. Ultrasound of the abdomen showed a cystic mass of around 4 cm in head of pancreas. Base line haematological and biochemical investigations were within normal limits. Serum Amylase andLipase were also normal.

An abdominal CECT Pancreas specific protocol (Figure 1) showed a cystic massa 4 × 4.1 × 3.4 cm cystic lesion in the pancreatic head showing communication with the dilated main pancreatic duct. We made a provisional diagnosis of an IPMN. Tumor markers (CEA, CA 19-9) were negative. A decision was made to operate in view of suspected IPMN.

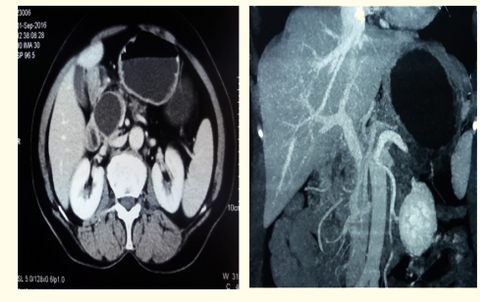

Figure 1: Cyst in Head of Pancreas.

Intra operatively, there was dense adhesions in peripancreatic area with an approximately 4 × 5 cm cystic structure in the head of the pancreas, which turned out to be a hydatid cyst. The cyst

was opened and germinal membrane was found (Figure 2). The cyst was injected with a sporicidal agent, 20% Hypertonic saline and the contents evacuated after packing the operative field with 10% Betadinesoaked sponges. Partial cystectomy with Roux en Y cysto-jejunotomy was done. Histopathological biopsy confirmed Hydatid cyst. ELISA for Echinococcal antigens done post-operatively was positive.

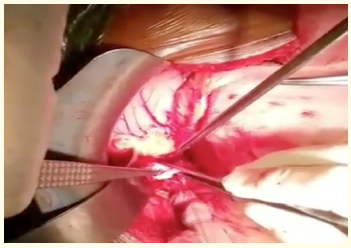

Figure 2: Germinal Membrane Being Removed.

Post-operative period was uneventful and patient was discharged on 7th post-operative day on Albendazole (10 mg/kg/day) for 12 weeks. Patient has been asymptomatic for the last 6 months since operation. Repeat Ultrasound of the abdomen is normal.

Discussion

Pancreatic location of hydatid disease is extraordinarily rare, and establishing a precise diagnosis pre-operatively may sometimes be difficult. PHCs are usually solitary (90% - 91%) and distributed unevenly throughout the head (50% - 58%), body (24% - 34%) and tail (16% - 19%) [2]. Hematogenous dissemination is hypothesized to be the most common mode of spread to the pancreas. The other possible modes of spread of cystic elements to the pancreas described are passage through the biliary system, lymphatic spread from the intestinal mucosa, direct passage via the pancreatic veins and retroperitoneal dissemination[4].

Clinical presentation varies according to the anatomic location of the cyst. Abdominal pain, discomfort and vomiting are the main clinical symptoms but patient might present with obstructive jaundice, weight loss, epigastric mass or recurrent acute pancreatitis[5].

The diagnosis is based on an enzyme-linked immunoadsorbent assay (ELIZA) test for echinococcal antigens [6]. The diagnostic sensitivity of abdominal ultrasound in abdominal echinococcosis in general ranges from 93% - 98%, but it may be less accurate with pancreatic lesions, due to the difficulty in visualization of the pancreas [7]. Presence of an undulating membrane and multiple daughter cysts within a mother cyst can suggest the diagnosis on CT and MRI [8].

A definitive diagnosis of hydatid disease of the pancreas can be made only at surgery. The characteristic radiological findings described for hydatid cysts are often not present [4], just like in our case. This makes differentiating Pancreatic Hydatid Cysts (PHCs) difficult from more common cystic lesions of the pancreas like Pseudocyst and benign or malignant cystic neoplasm of the pancreas.

Conservative techniques like Puncture-Aspiration-Injection-Re aspiration (PAIR) or direct percutaneous catheterization with medical therapy have been described in patients not fit for surgical intervention [9]. Open surgery is the treatment of choice [4]. The exact procedure depends on the location of the cyst. Cysts present in the head without any communication can be treated with peri cystectomy, partial peri cystectomy with external drainage or omentopexy, marsupialization or pancreatoduodenectomy procedures. In cysts with communication to the pancreatic duct, cysto-enteric anastomosis is the favoured procedure [2].

Our aim of presenting this case is to highlight the fact that though Pancreatic Hydatid Cyst is a very rare entity, it should be considered in the differential diagnosis of cystic lesions of the pancreas.

Conclusion

PHC can masquerade as a cystic neoplasm of pancreas. It should always be considered in the differential diagnosis of cystic pancreatic lesion in patients from endemic regions.

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