Case Report

Retroperitoneal hydatid cyst at a rare site- a case report

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Abstract

Hydatid disease in humans is caused by the parasite Echinococcus Granulosus. It is most commonly found in liver and lungs. Primary Retroperitoneal Hydatid cyst is extremely rare and constitutes only 0.8% of total cases.

We present a case of a 42 year old female who presented with a historyof gradually increasing abdominal mass. A clinical diagnosis of Pancreatic cystic neoplasm was made and Whipple's procedure was performed. A histopathological diagnosis of Retroperitoneal Hydatid cyst was given.

The diagnosis of hydatid disease should be considered in the differential diagnosis of all cystic lesions at all anatomic locations, particularly in areas where the condition is endemic.

Key words: Hydatid cyst, Retroperitoneum, Cyst

Introduction

Hydatid disease in humans is caused by the parasite Echinococcusgranulosus which is endemic to temperate climate [1]. It is usually found in the liver & lungs, but can also develop anywhere in the body including spleen, kidney, pancreas, peritoneum, retroperitoneum& soft tissues [2]. Primary retroperitoneal hydatid cyst is extremely rare & constitutes only 0.8% of total cases. In India, hydatid disease is common in most states of which Andhra Pradesh, Tamil Nadu & Jammu-Kashmir predominate [3].

Hydatid disease at unusual sites frequently cause diagnostic problems giving rise to delay in diagnosis & potentially serious complications [2].

Case Report

History- A 42 year oldfemale was admitted to the Department of Surgery of our institute with a history of gradually increasing swelling in right iliac fossa & right hypochondriac region since 1 year.

Past history was insignificant & systemic examination was normal. On local examination, a non-tender mobile lump of size 20X20 cm was seen on right side of abdomen.

On CT-scan, a9.5 X 8 cm size thick walled cystic lesion was seen suggestive of pancreatic pseudocyst or inflamed hydatid cyst.

The clinical diagnosis of pancreatic cystic neoplasm was suggested with the help of imaging findings. Primary treatment was exploratory laparotomy & lump was removed using Whipple's procedure.

Gross Features- A smooth, encapsulated cysticmass measuring11 X 9.5 X 5.5 cm with duodenal segment of 5 cm encircling the mass& part of pancreas measuring 3.5 X 3 cm was received in our Department of Pathology.

The cyst was unilocular, smooth external surface. On cut surface- milky white fluid with whitish flakes was seen.

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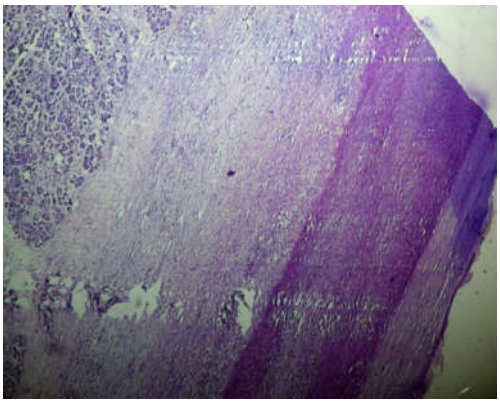

Fig.1: Photomicrograph showing cyst wall composed of thick fibroblastic tissue separating it from pancreas (H&E, 5x)

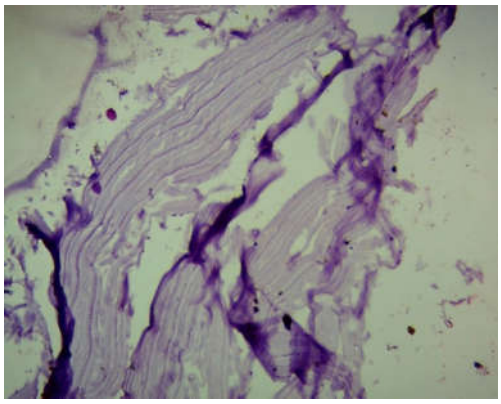

Fig2: Photomicrograph showing lamellated chitinous cyst wall (H&E, 10x)

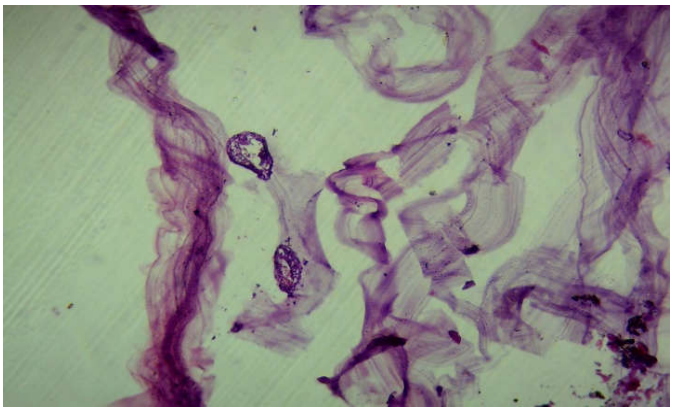

Fig3: Photomicrograph showing lamellated chitinous cyst wall with brood capsules. (H&E)

Microscopic Features- Sections studied from the cyst wall showed thick fibroblastic tissue with collaginisation & dense eosinophilic infiltrate forming eosinophilic abscess attached with chitinous wall. Other sections showed lamellatedchitinous wall with brood capsules. Section from pancreas was unremarkable. The diagnosis was given ashydatid cyst posterior to head of pancreas with viable margins of the duodenal segment. (Fig.1, 2, 3)

Discussion

Hydatid disease known since ancient time, constitutes a serious health problem in endemic areas. [1]Hydatid disease is caused by Echinococcus granulosus and is endemic in Central India. It is a major health problemin sheep & cattle rearing countries [4].

Cystic echinococcus iscommonly involves organs liver (65-75%), & lungs (15-25%), followed by spleen (5%), kidney (4%), bones (1-4%), & pancreas (0.1-2%) [5]. Hydatid disease involving retroperitoneum is rare & an isolated retroperitoneal hydatid cyst is extremely rare seen in 0.8% of cases.[3]

Retroperitoneal hydatid disease is defined as a zone of hydatidosis occurring in fatty tissue in the space lying behind posterior parietal peritoneum without any parasitic foci in other organs [4]. The retroperitoneal involvement was always thought to be secondary to rupture or spillage during surgery of liver hydatids [1]. Primary retroperitoneal hydatid cyst without other organ involvement was first reported by Lockhart & Sapinza in 1958. [1]. The most common clinical feature is abdominal pain, but mostly symptoms depend on location of cyst [4]. Our case was that of asymptomatic swelling in abdomen which is a rare kind of presentation. Also in our patient there was no occurrence of hydatid cyst in other organs.

Radiography, CT scan, USG studies with histopathological examination is important for diagnosis of disease [1]. The sensitivity of CT scan ranges from 90 to 97% [1]. CT scan may demonstrate awell defined hypodense mass with enhancing septa, a cyst with round daughter cysts arranged at the periphery, calcified areas within cyst & undulating membrane [2]. Serological tests like IgG antibodies by ELISA also

contribute to diagnosis with specificity of 94% [1]. On histopathological examination,hydatid cyst is seen to consist of three layers- outermost is adventitia, intermediate layer is laminated membrane & innermost is the germinal layer which gives rise to brood capsule with scolices [2].

Management of hydatid cyst is based on size, location & manifestations of the cyst. Asymptomatic, small cysts are treated with anti-helminthic drugs. Larger cysts require surgical resection.

Total cystectomy is the gold standard [4]. In our case, CT scan was suggestive of inflamed hydatid cyst for which Whipple's procedure was done considering pancreatic pseudocyst as an alternative diagnosis.On histopathological examination, the diagnosis was confirmed as hydatid cyst.

Conclusion

Hydatid disease should be considered in differential diagnosis of all cystic lesions at all anatomical locations particularly in areas where the disease is endemic. A combination of clinical history, imaging findings & histopathological examination aids in diagnosis at such rare sites.

Findings: Nil; **Conflict of Interest**: None initiated
Permission from IRB: Yes

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