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Primary Hydatid Cyst of Sigmoid Mesocolon --- A Rare Presentation

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ABSTRACT
Primary peritoneal echinococcosis is rare and the mechanism of primary peritoneal infestation is still not clear. Clinical presentations vary with the site and size of cyst and usually result from complications due to mass effect of the enlarging abdominal cyst. We present a case of hydatid cyst of sigmoid mesocolon who presented with chronic abdominal pain.

INTRODUCTION

Hydatid disease is a parasitic infestation caused by the tapeworm Echinococcus granulosus. Echinococcosis occurs worldwide and can affect multiple organs with liver and lungs being the most common sites of infestation. Peritoneal hydatidosis commonly occurs secondary to a ruptured hydatid cyst of the liver or the spleen. Primary peritoneal hydatidosis is an extremely rare entity. Most patients remain asymptomatic for years before presenting with vague abdominal symptoms such as non-specific pain.

CASE REPORT

A 65 years old male presented with right inguinal hernia with chronic dull aching pain in left iliac fossa since 1 year. He had no bowel or bladder complaints. Clinical examination revealed right reducible inguinal hernia. Rest of the abdomen was unremarkable.

Ultrasonography of abdomen and pelvis showed well defined thick walled cystic lesion in left iliac fossa indenting anterolateral wall of bladder of size 5x5.4x5.8 cm with few internal echoes within with wall calcification with no solid component.

Contrast enhanced computed tomography (CECT) was suggestive of a 4.8x5.5x6.9cm non enhancing thin wall hypodense cystic lesion with few internal septations in left iliac fossa. It was abutting anteriorly to bladder and posteriorly to ureter (Fig. 1a & b). There was also right inguinal hernia. Liver and spleen were normal.

Chest radiograph was normal. Serum IgG echinococci was negative. Rest of the blood and routine investigation were within normal limit.

Exploratory laparotomy revealed a cystic lesion arising from mesentry of sigmoid colon(Fig.2a). The cyst was dissected from the mesenteric vessels and removed in toto (Fig. 2b). On opening of cyst muddy fluid was seen (Fig.2c). Cyst wall was hard and calcified and sent for histopathology. Postoperative course of patient was uneventful.

Histopathology examination of cyst was suggestive of calcified hydatid cyst wall. Patient was adviced a course of albendazole for 1 month. Postoperative follow up of 1 year shown him to be symptoms and disease free.

Fig. 1 a & b - CT axial & coronal view showing non enhancing thin wall hypodense cystic lesion with few internal septations in left iliac fossa abutting anteriorly to bladder and posteriorly to ureter

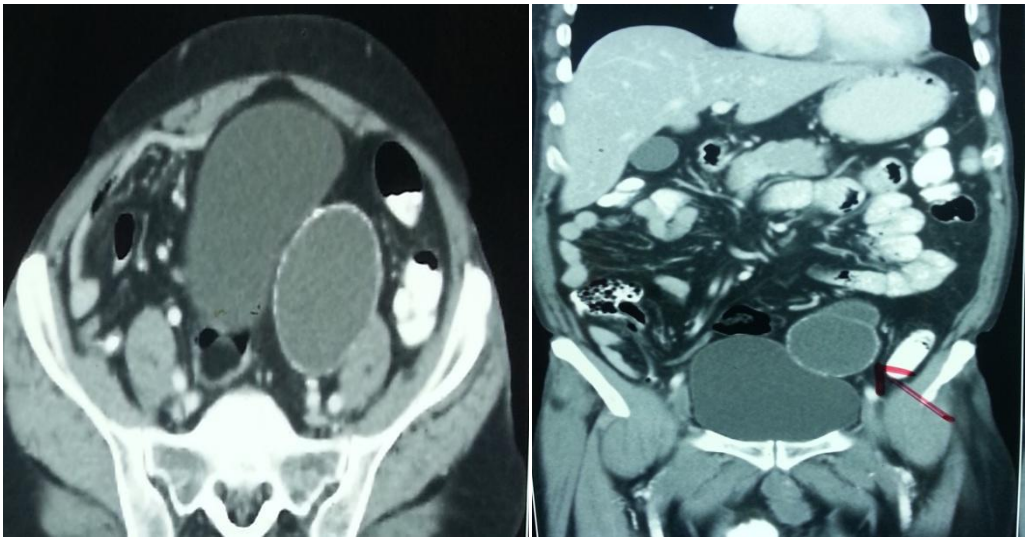

Fig. 1 a & b

Fig. 2 a – Intraoperative image showing sigmoid mesocolon cyst
2 b – Excised hydatid cyst
2 c – Cut open specimen of hydatid cyst

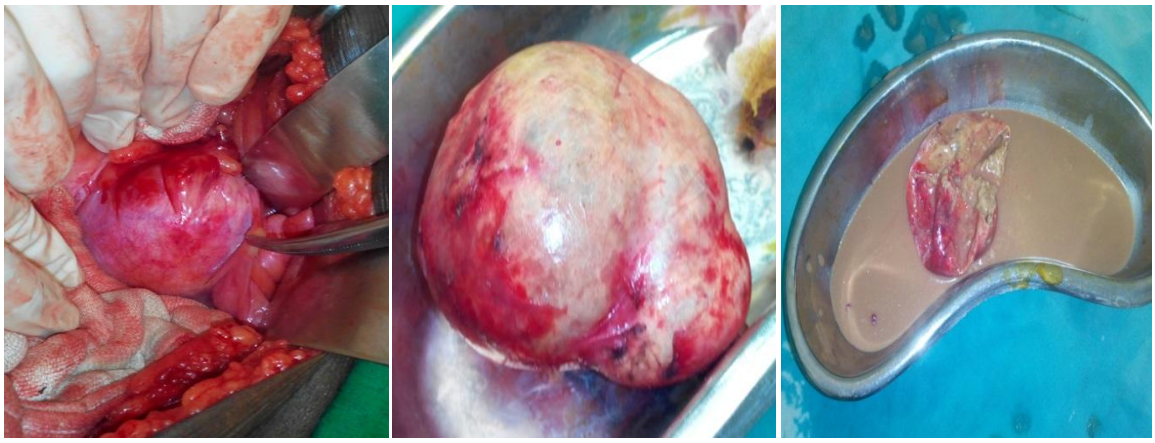

Fig. 2 a, b & c

DISCUSSION

Hydatidosis is a zoonotic disease caused by cysts of Echinococcus granulosis. Its primary host is the dog with humans being accidental host . Human disease occurs when tapeworm ova are ingested by humans either by consuming unwashed and uncooked vegetables or because of close contact with dogs [(1)]. Although liver and lungs are most commonly involving organs, primary peritoneal hydatidosis occurs uncommonly [(2)].

Peritoneal hydatidosis can be primary or secondary. Primary peritoneal hydatidosis is rare. Mechanism of peritoneal infestation is not clear in primary. Dissemination via lymphatics or

systemic circulation has been implicated as a possible cause [3,4]. Secondary Peritoneal Hydatidosis may develope due to seeding from spontaneous rupture of Hepatic or rarely splenic cyst into peritoneum or spillage of cyst fluid during previous surgery [5]. In present case, preoperative CECT of abdomen & pelvis was suggestive of left iliac fossa cyst and ruled out hydatid involvement of any other abdominal organ.

Diagnosis of peritoneal hydatidosis is usually radiological and aided by serological testing. USG is the first line of screening and CT Scan gives wider field of view and correct topographical evaluation for radical surgical treatment. Serological tests are not always helpful but may help in supporting the diagnosis.

Surgery remains the best curative or palliative treatment for peritoneal echinococcosis, although antihelminthics can be effective alternative for the treatment of small and asymptomatic cysts [2]. Combination therapy of Albendazole and Praziquantel is more effective than either agent alone. Complete removal of the cysts is the gold standard [6].

In present case, patient had chronic pain in left iliac fossa region and on imaging, hydatid cyst of sigmoid mesocolon got diagnosed. It is a rare site of primary hydatid cyst. Rather, it is the first case reporting primary sigmoid mesocolon hydatid cyst. Patient was managed with surgical excision in toto. Antihelminths were given in postoperative period. Patient found to be completely asymptomatic and disease free over 1 year of follow up.

CONCLUSION

This is a rare presentation of primary hydatidosis in sigmoid mesocolon, presenting as chronic dull aching abdominal pain. Surgical removal is the treatment of choice. Antihelmith drugs prevent recurrence. It is important to look for cysts in other areas of peritoneal cavity during surgery of hepatic or splenic hydatid cyst. Spillage of hydatid fluid during surgery should be avoided. Proper use of scolicidal agents should be done intraoperatively. If spillage occurs, use of antihelminthics will be useful to avoid secondary peritoneal echinococcosis. And finally, more studies are required to know the aetiology of primary peritoneal hydatidosis.

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