



CASE REPORT

A CASE OF PRIMARY RETROPERITONEAL HYDATID P Khwaunju^{1*}, KK Tamrakar¹, K Sah¹, HC Neupane¹

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ABSTRACT

Hydatid disease is a common condition usually involving liver and lungs. Primary retroperitoneal hydatid is not a common occurrence and it may mimic other retroperitoneal tumors clinically and radiologically. We herein present a case of primary retroperitoneal hydatid mimicking retroperitoneal mass. It was diagnosed by CT scan and FNAC examinations and managed surgically.

Key words: *Hydatid, primary, Retroperitoneal.*

INTRODUCTION

Hydatid disease is a serious public health problem especially in areas with poor hygiene and sanitation. It is caused by the larval stage of parasite *Echinococcus Granulosus*. It usually involves liver (70-80%) and lungs (10-20%).¹ However it can also develop anywhere in the body including spleen, kidney, pancreas, peritoneum, retroperitoneum, central nervous system, soft tissues, and the breast. Isolated retroperitoneal hydatid disease is extremely rare and is usually secondary to the involvement of other organs (especially the liver) or to surgery.² We report herein a case of hydatid disease of the retroperitoneum without any other organ involvement.

CASE REPORT

A sixty years old woman was admitted to hospital

with two years history of lump in right lower quadrant of abdomen. The mass was painless and gradually increasing in size. There were no complaints of pain, fever, diarrhoea, constipation, jaundice or GI bleed. Her appetite was normal and there was no history of weight loss. Her vital signs were normal. There was no pallor or icterus. On clinical examination, there was a huge, firm, slightly mobile, painless mass about 10 x 10 cm in the right lower quadrant of the abdomen.

Laboratory investigations were within normal limit. Chest x-ray didn't show any signs of secondary deposits. Ultrasonographic examination revealed a retroperitoneal multicystic mass lesion at right pelvic cavity extending posterior to the right kidney

measuring 13x8x8cm. CECT of abdomen was done which showed huge heterogeneously enhancing lobulated mass at right retroperitoneum. The mass was following the course of psoas muscle and displacing it anteriorly. Iliac vessels were also anteromedially displaced. There were no associated changes in vertebra and pelvic bones. No significantly enlarged lymph nodes were seen. Rest of the abdominal viscera were normal.

The imaging findings suggested the lesion to be a retroperitoneal sarcoma, teratoma, hydatid or lymphangioma. So FNAC was done to confirm the diagnosis which showed acellular connective tissue fragments. Some areas showed laminated membrane like structures. Hooklets or atypical cells were not seen. The findings were suggestive of hydatid cyst.

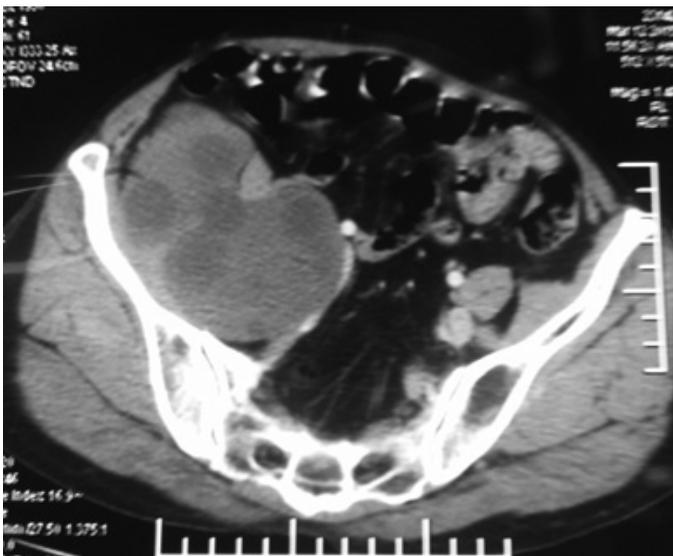


Fig-1: CT scan image of the tumor

The patient was prescribed albendazole four days before surgery. At laparotomy, there was a huge cystic mass at right retroperitoneum without any adhesions to the major vessels or kidney. Mass was posterior to

the psoas muscle without any dense adhesions with it. However, mass was densely adherent posteriorly impairing the dissection. So, the cyst was opened after placing the hypertonic saline soaked gauzes around it. All the contents including the daughter cysts and germinative membrane were evacuated and scolicidal agents were put in the cavity. On further dissection the cyst was found to be densely adherent to the femoral nerve and the lumbar plexus of nerves. The redundant pericyst was excised preserving these structures.

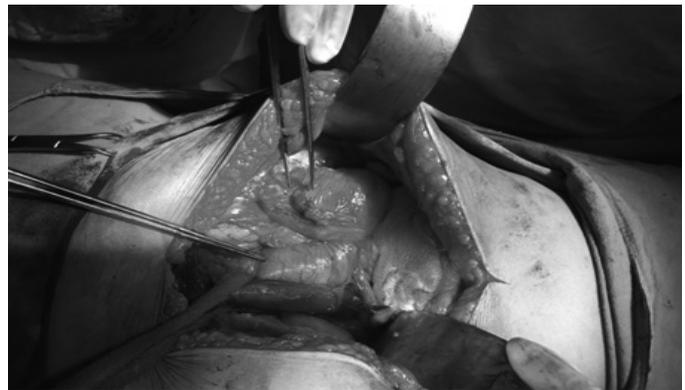


Fig-2: Operative image of the cyst

The postoperative period was uneventful. The patient was discharged seven days after the operation on albendazole. At a follow-up visit 2 months after surgery, the patient remained symptom-free, and a repeat US showed no evidence of recurrence.

DISCUSSION

Hydatid disease is caused by infestation of the cystic stage of parasite *Echinococcus granulosus* also known as dog tapeworm. Other species of the parasite that may cause the disease are *E Multilocularis*, *E Oligarthus* and *E Vogelli*. The disease is endemic

in Asia, South America, and certain parts of Africa and in some Mediterranean countries. Lack of slaughterhouse and waste disposal system, too many street dogs, food spoilage, poor sewage drainage, poor garbage pickup, poor hygiene and sanitation in meat marketing centres, lack of meat inspection act and poor knowledge of disease transmission in butchers and meat seller communities are the factors causing increased incidence of the disease.³ The life cycle of the parasite is maintained in nature by dog-sheep-dog cycle. Dog is the primary host and sheep is an intermediate host. Man is an incidental intermediate host. Man gets infested when the tapeworm ova are ingested either by consuming unwashed and uncooked vegetables or as a result of close contact with an infested dog.⁴ Ingested eggs release oncospheres which penetrates intestinal mucosa and enters the blood stream from where it reaches different organs to develop into hydatid cyst.⁵ Retroperitoneal hydatidosis is usually the result of spontaneous, traumatic, or surgical rupture of a hepatic cyst.⁶ Primary retroperitoneal hydatidosis without any other organ involvement is very rare.⁷⁻

⁸ Primary retroperitoneal hydatid disease was first reported by Lockhart and Sapinza in 1958. Frequency of primary retroperitoneal hydatidosis is 0.5-2%. Hydatid disease located in rare abdominal sites may lead to diagnostic difficulties. Differential diagnoses include retrorectal cyst, teratoma, cystic lymphangioma, necrotic malignant soft tissue tumor.⁹ There are no specific local or general symptoms and signs, and most cases are diagnosed following incidental findings on radiographic examination for unrelated complaints. Complications such as rupture of the retroperitoneally located hydatid cysts into the large vessels, ureteral invasion, pressure effect to the adjacent structures or secondary infections can occur. Kandiralli et al reported a case of hydatid of psoas muscle causing nonfunctioning kidney.¹⁰ Similarly Sarda et al reported a case of retroperitoneal hydatid migrating to thigh.¹¹ Routine blood tests are generally normal but eosinophilia occurs in a quarter of cases. Serological tests have 85% sensitivity. Although US and CT are sensitive in detecting hydatid cysts, hydatid disease demonstrates a variety of imaging features that vary according to growth stage, associated complications and the affected tissue. FNAC is useful investigation but anaphylaxis due to spillage has been reported in some cases. Currently, most viable treatment procedure for hydatid disease is surgery, open or laparoscopic within the selected cases.¹² Goals of the surgery are taking out all living cysts from the patient, sterilization of cyst contents, and excision of germinative membrane. Carefully taking out the cyst and its germinative membrane without spreading cyst contents into the abdominal cavity is essential to prevent recurrence.

Complete removal of the cyst may not be possible in some cases due to dense adhesions to the vital structures. The choice of surgery should be evacuation of cyst and removal of redundant portion of pericyst leaving the cyst cavity open.

In conclusion hydatid disease should be considered in the differential diagnosis of all cystic masses in all anatomic locations. CT scan and FNAC are useful investigations to make correct diagnosis and surgical removal is the treatment of choice.

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