

Giant Primary Retroperitoneal Hydatid Cyst: A Case Report

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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Case Study

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ABSTRACT

Primary retroperitoneal hydatid cyst is rare. It's developed in retroperitoneal space without accompanied lesions in other organs. We present a rare case of a primary retroperitoneal hydatid cyst treated through surgical means. 55 years old woman living in a rural area, came with left lumbar pain and left lumbar mass. Ultrasonography, and Computed tomography revealed a giant multiloculated retroperitoneal hydatid cyst.

The cyst occupied all the retroperitoneal space and refuelling kidney and peritoneal viscera, hydatid serology test was highly positive. The other examination did not reveal lesions in the liver, lung, kidney or other organs. We confirmed the diagnosis through left lombotomy. Infected multiloculated hydatid cyst was adherent to psoas muscle ureter and iliac vessels, so we treated it by draining all hydatid fluid and removing hydatid vesicles and partial pericystectomy.

Keywords: Retroperitoneum; hydatid cyst; daughter cysts.

1. INTRODUCTION

Hydatid disease is an endemic parasitic infection in Mediterranean countries, Middle East and Southeast Asia. Primary retroperitoneal hydatid

cyst localization means cysts presented in retroperitoneum independently of any peritoneal visceral, and no simultaneous or previous hydatid disease of other organs. This anatomic situation of hydatid disease is extremely rare [1].

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2. CASE REPORT

We admit a 55-year-old woman who lived in a rural area. The woman complained of an abdominal palpable mass in the left lower quadrant, for several months. The patient was in close contact with dogs and other farm animals. There is abdominal pain without urinary symptoms. On physical examination, there was a fixed, painless mass in the left lower quadrant of the abdomen, about 20 cm in diameter.

The blood cell count and serum examination were not remarkable. ELISA and IHA for echinococcus infection were highly positive.

The chest X-ray was not abnormal. Ultrasonography revealed a multiloculated heterogeneous cyst in the retroperitoneal space. Computed tomography showed a giant, multiloculated cyst in the left retroperitoneal space, measuring 18 cm in diameter (Figs. 1 and 2). Surgical exploration, via a left lombotomy, revealed a giant cystic mass in the left retroperitoneal space, displacing the intestine to the right side. We cannot excise the multiloculated cyst intact since it is closely adherent to the adjacent organs, such as the psoas, the ureter and iliac vessels. We removed multiple daughter hydatid cysts after fluid drainage and irrigation with 10% oxygen water (Fig. 3). Furthermore, we removed the wall of the

cyst as much as possible to avoid injuring the ureter, iliac vessels and kidney. We placed one drain in the residual cavity and extracted it on the fourth day without drainage. Convalescence was uneventful. Pathological examination confirmed the diagnosis of echinococcus. We performed Ultrasonography 6 months after surgery, it was normal.

3. DISCUSSION

Human is an incident host of *Echinococcus granulosus* after ingestion of the ova, digestive mechanisms liberate the larvae in the intestine tract. Then they penetrate the bowel and enter the portal system.

Liver and lungs trapped most parasites 85-95% and only 5-15% of them escape into the sanguine circulation and then involve other organs which are rare localizations. Brain, heart, pericardia, kidney, intra-peritoneal, retroperitoneum, bone, soft tissue, and breast was described as rare localization even in endemic areas [2].

Between 2000 and 2016, thirty primary retroperitoneal hydatid cyst cases were described; we exclude the retro bladder hydatid cyst. The most were from Turkey, the other cases were from Greece Spain Tunisia morocco Iran India and china.



Fig. 1. Abdominal scan image of the multilocular retroperitoneal hydatid cyst



Fig. 2. Lateral view of Computed tomography image of the retroperitoneal hydatid cyst

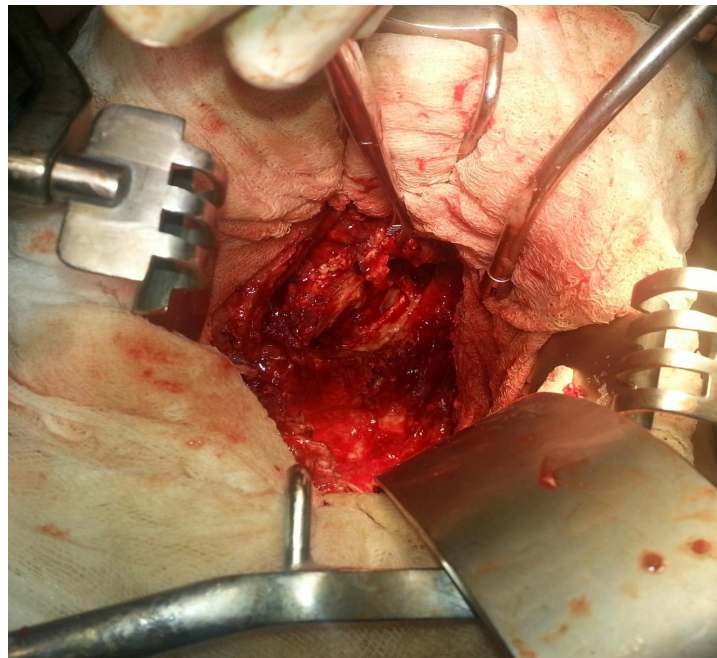


Fig. 3. Left retroperitoneal space, after hydatid cyst removal

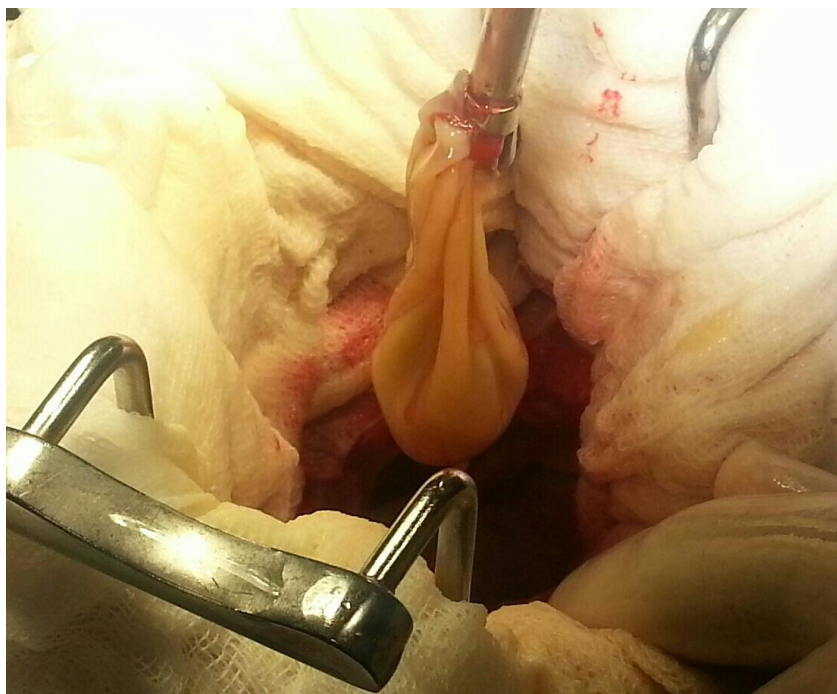


Fig. 4. Hydatid vesicle

Symptoms are related to the size, site, or ensuing complications of a cyst. Retroperitoneal hydatid cysts can present as abdominal or back pain (31%), palpable mass (65.1%) or urinary tract symptoms (13.9%) depending on the size [3], growth speed or complications.

Ultrasonography and CT scan supply the precise nature of the cysts. Image examination should include lungs and whole abdominal cavity if hydatid cysts were suspected. Uro-densitometry is essential to check the renal, ureteral and bladder compression in patients.

In case of retroperitoneal cysts. Serology tests, such as immuno-electrophoresis, indirect hemagglutination test, complement fixation test, and ELISA, are helpful but unreliable for low sensitivity and specificity (3) IgM (ELISA) is useful for post-treatment follow up [4,5].

In our case, we made the diagnosis pre-operatively with suggested imaging and positive serology.

Total cystectomy is the ideal surgery for retroperitoneal hydatid disease [6,7,8].

Here, the giant cysts were adherent to retroperitoneal structure closely (psoas, ureter,

kidney, and iliac vessels), total cystectomy was impossible and with high risk.

We adopt partial peri cystectomy leaving an area of cystic wall contact to the important structure after cyst irrigation with oxygenated water 10% during 10 minutes followed by removal of germinative membrane and daughter vesicles. Surgery was sufficient without using albendazole.

Clinicians and surgeons must know of retroperitoneal localization of hydatid cyst and follow a policy of non-systematic puncture of an abdominal cyst and avoid spillage during surgery. Total and careful surgical excision is the gold standard therapy [9].

4. CONCLUSION

Retroperitoneal cyst remains a rare localization of an abdominal cyst. However, in an endemic area, this diagnosis should be considered. Compression of retroperitoneal organs produces symptoms of pain, and abdominal mass, imaging (ultrasonography and ct abdominal scan) and hydatid serology are useful to confirm diagnosis precociously and avoid complications like cyst rupture or fistulization to retroperitoneal space or organs or peritoneal organs of thoracic organs. Total cystectomy is the gold standard when it's

workable. Anti-helminthic medication is showed to prevent hydatid cyst recurrence and in the case of disseminated disease.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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