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Case Report

PRIMARY RETROPERITONEAL HYDATID CYST; A RARE PRESENTATION OF ECHINOCOCCUS

Ekinokokların nadir bir klinik formu; Primer retroperitoneal hidatik kist

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ABSTRACT

Retroperitoneal hydatid disease is a rare parasitic infection caused by the tapeworm Echinococcus granulosus. Most of the time it is secondary to a hepatic hydatid disease. We present a case of a 50-year-old man with an abdominal swelling which when evaluated turned out to be a primary retroperitoneal hydatid cyst, who underwent total excision of the cyst and postoperative albendazole therapy. Hence Hydatid cyst should always be considered in the differential diagnosis of all cystic masses in all anatomic locations, especially in individuals living in endemic regions of the world.

Key words: Echinococcosis; hydatid cyst, primary, and retroperitoneum.

ÖZET

Ekinokokus granulozisin oluşturduğu retroperitoneal hidatik kistlere oldukça nadir rastlanır. Genellikle vakalar primer karaciğer kist hidatiklerine sekonder olarak gelişirler. Burada 50 yaşındaki bir erkek hastada tesbit edilen ve cerrahi olarak çıkarıldıktan sonra albendazol tedavisine alınan bir primer retroperitoneal hidatik kist vakası sunuldu. Hidatik kist tanısı özellikle endemik bölgelerde yaşayan ve kistik lezyonu olan vakaların ayırıcı tanısında öncelikle düşünülmelidir.

Anahtar kelimeler: Ekinokok, hidatik kist, primer ve retroperiton.

INTRODUCTION

Hydatid disease is caused by *Echinococcus granulosus,* which primarily affects liver and lungs in humans, the accidental intermediate host. It is divided into primary and secondary disease. Hydatid cyst which develops only in the retroperitoneal space without an accompanied lesion in other organs is defined as primary retroperitoneal hydatid cyst. It is extremely rare, seen in 0.8% of the cases. Secondary retroperitoneal hydatid disease is seen with the involvement of other organs (especially the liver) or to surgery (1). Herein, we report a case of primary retroperitoneal hydatid cyst.

Case

A 50-year-old man, farmer, with no comorbidities, presented with a painless mass in the left lower abdomen of 1 year duration. It was insidious in onset and slowly progressing. Abdominal examination revealed a 14x12 cm immobile, oval swelling, which occupied the left iliac, lumbar, umbilical and hypogastric regions, with a smooth surface, well defined borders and firm in consistency (Figure 1).

Liver was not palpable. Per rectal examination and other systems were normal. Routine laboratory investigations were within normal limits except for the raised eosinophil count. Computed tomography of the abdomen revealed a well- defined cystic lesion measuring 10.2 x13.0 x 16.7 cm with a non-enhancing thick wall (6.6 mm) in the left hemi-abdomen extending across intra-peritoneal and retroperitoneal compartments. A few floating membranes were seen within in the dependant portion of the cyst suggestive of hydatid cyst with collapsed parasitic membranes (Figure 2).

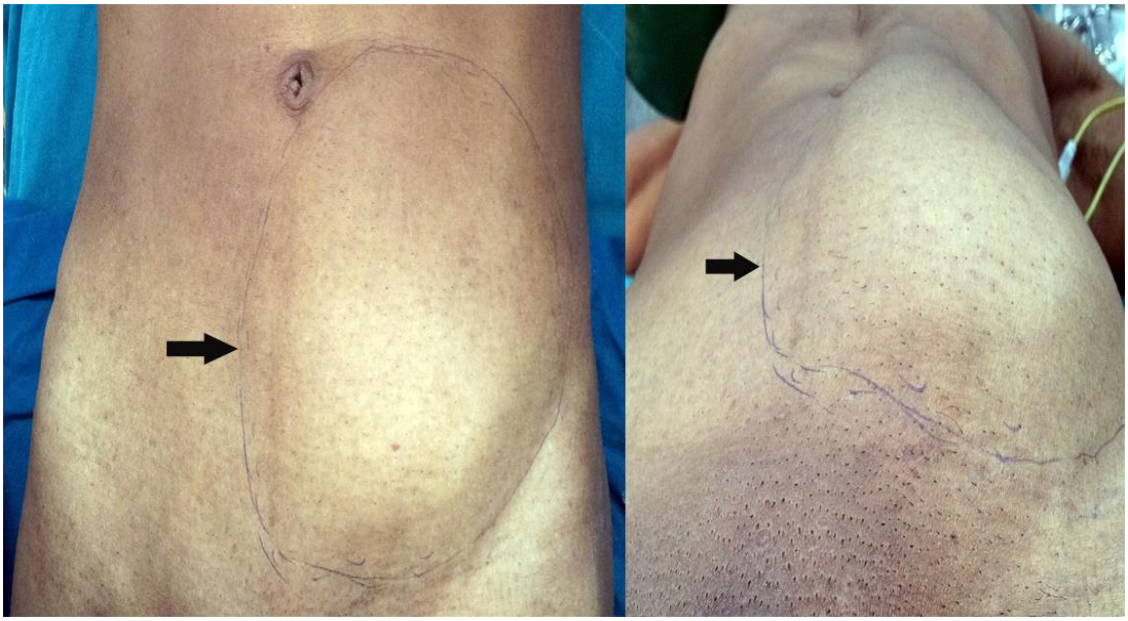

Figure 1

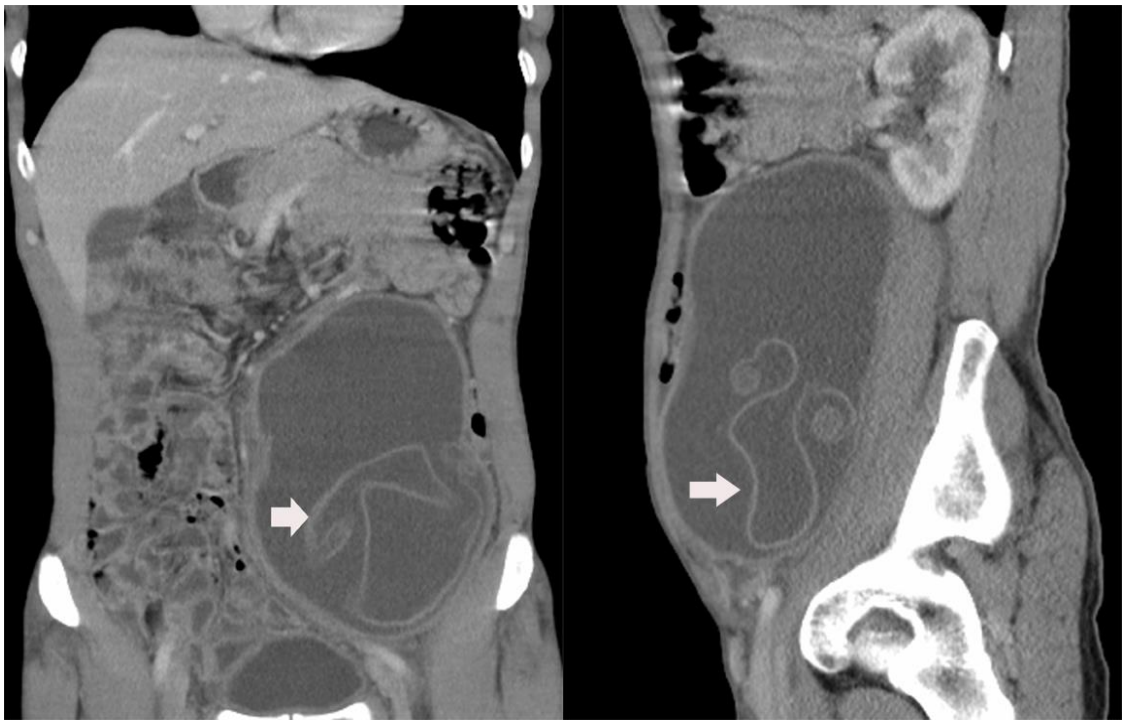

Figure 2

Preoperatively, patient was treated with tablet Albendazole 400 mg twice a day for 7 days, followed by exploratory laparotomy. A left oblique incision, just above the swelling was given and retroperitoneal approach for cyst excision was planned. However, the dissection of cyst in toto could not be done due to dense adhesions; therefore the cyst cavity was opened and hypertonic saline was poured and kept in situ for 20 minutes and then aspirated. The laminated membrane was removed freely and separated from the rest of the cyst wall (Figure 3).

The post-operative period was uneventful. Intra-operative histopathology report was consistent with hydatid cyst. Patient was discharged with tablet Albendazole 400 mg to be taken twice a day for 3 months. Follow-up at 3 months, patient was asympotmatic.

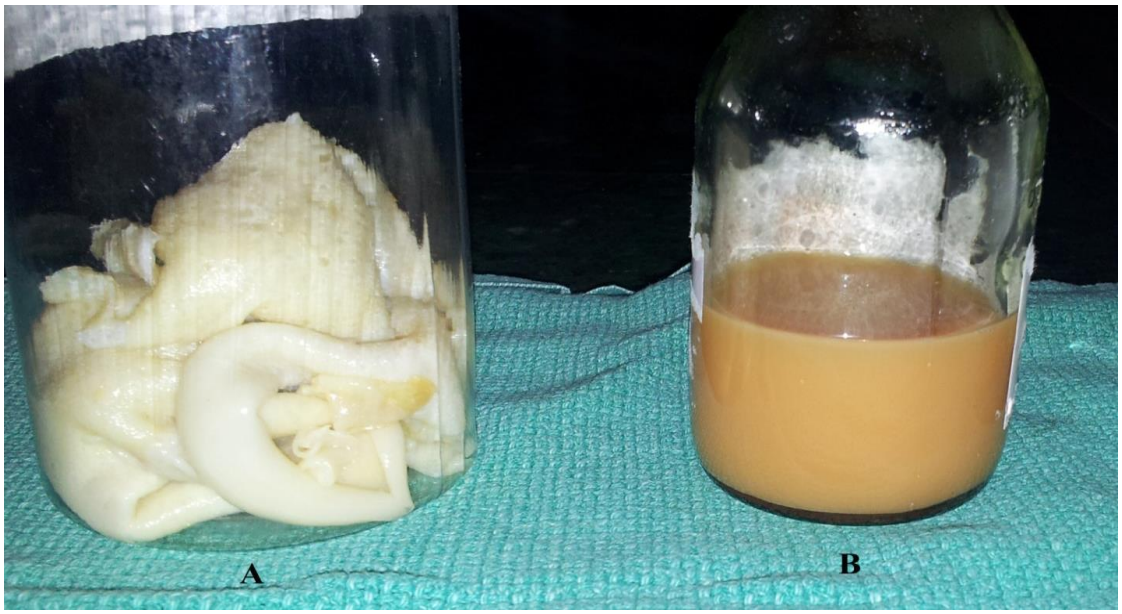

Figure 3

DISCUSSION

Hydatid disease is caused by infestation with the encysted larval stage of *Echinococcus granulosus* in humans, the accidental dead end host. Hydatid cyst consists of three layers: adventitia, laminated membrane (endocyst), and germinal layer, from external to internal, respectively. The germinal epithelium is the only living part of a hydatid cyst (2).

Primary retroperitoneal hydatid cyst, without any other organ involvement, was first reported by Lockhart and Sapinza (3) in 1958. A recent review of literature, reported only 41 primary retroperitoneal hydatid cyst cases and only 2 cases (one in an elderly male and the other in an elderly female) presented with an abdominal mass due to retroperitoneal hydatid cyst were reported. Approximately 60% of the patients (25 out of 41) were men and the remaining 18 were women. This studied concluded that the common presentation of patients included back or abdominal pain (72% of the patients), palpable mass (65.1%) and/or urinary symptoms (13.9% of the patients) (4). An overwhelming proportion of the cysts are mostly located in liver (75%), with a smaller proportion in the lungs, spleen, kidney, brain, etc (5).

Individuals living in the endemic areas or with recent history of travel to endemic areas, presenting with the above mentioned complaints, a cystic mass in the retroperitoneum and/or not responding to the standard line of management should be investigated further with appropriate laboratory investigations. Computed tomography of the abdomen should be undertaken to aid in diagnosis of hydatid cyst. Primary retroperitoneal hydatid cyst may be treated successfully with total excision of the cyst, or as in our case, drainage with marsupilisation of cyst wall, followed by post-operative tablet albendazole for 3 months. During surgery, adequate precautions must be undertaken to limit the risk of anaphylaxis and its treatment.

Primary hydatid cyst disease is a rare entity with less than 50 reported cases till date, requiring a high degree of clinical suspicion. The index of suspicion should be higher in those situations where the patient fails to respond to standard line of management in endemic regions. Hydatid cyst should always be considered in the differential diagnosis of all cystic masses in all anatomic locations, especially in individuals living in endemic regions of the world.

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