CASE REPORT

Primary Isolated Renal Hydatid Cyst Simulating Renal Malignancy

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ABSTRACT

Renal hydatid disease occurs in only 2 to 3 percent of cases. Primary isolated renal hydatid cyst is an extremely rare manifestation. A case of 20 year old male is reported who presented with left lumbar pain and weight loss. Preoperative diagnosis was renal malignancy. During surgery renal hydatid cyst was found.

Key words *Hydatid cyst, Renal hydatid cyst, Renal carcinoma.*

INTRODUCTION:

Renal involvement in Hydatid diseases is rare and found in just 2 to 3 percent of all cases. It is caused by larval stage of the tape worm Echinococcus granulosis.[1, 2] The incidence of primary renal hydatid disease sparing lungs and liver is even rarer.[2] Most frequently involved sites in hydatid disease are liver (75%) and lungs (15%). It has been reported that women are more prone than men to get this disease due to increased exposure to domestic animals mainly sheep and cattle.[3] The case of a male patient is presented whose major complaints were left lumbar pain and weight loss for one year in whom renal carcinoma was suspected.

CASE REPORT:

A 20 years old male presented with the complaints of pain in the left lumbar region for about one year. Pain was slow in onset and dull in character. He denied any history of fever, vomiting, dysuria, hematuria and gravels in urine. Abdominal examination revealed a smooth, tender mass in left flank. Systemic examinations was unremarkable. He was vitally stable. Routine hematological and biochemical laboratory tests were within normal range. Chest x-ray was also normal. Antibody test against echinococcus was negative. CT scan showed a complex cyst involving the lower pole of the left kidney. It measured 9.5 cm x 7.8 cm in cranio-caudal direction (Fig I). Marginal calcification was also seen. Post contrast study showed peripheral and septal enhancement. There was also an indication of abdominal lymphadenopathy with enlarged lymph nodes seen in the left renal hilum. One of them measured 1.0 cm. There was suspicion of renal cell carcinoma in this patient. A radical nephrectomy was thus planned.

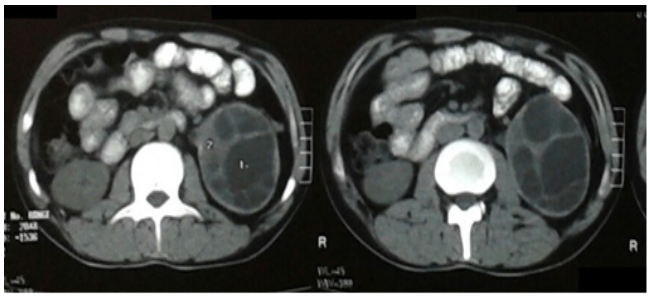

Fig I: CT scan showed a complex cyst involving the lower pole of left kidney.

The kidney was approached through transperitoneal, extended left subcostal incision. The intestines were packed to the right and left colon mobilized and reflected medially. Renal pedicle was dissected free, arteries and vein were identified and ligated separately. Kidney was removed along with Gerota's fascia, and proximal ureter. The resected kidney specimen was cut open for gross examination and found to have a hydatid cyst with multiple daughter cysts occupying most of the renal perenchyma (Fig II). The specimen was sent for histopathological examination. Patient had an uneventful recovery and discharged home on 7th post-operative day. Patient was given albendazole 400 mg bd orally postoperatively for two weeks.

DISCUSSION:

Renal hydatid cysts can be detected preoperatively by various investigations. Usually computerized scans

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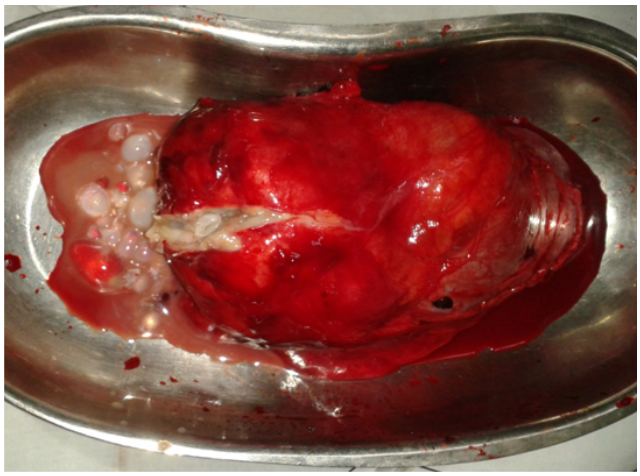

Fig II: Removed Kidney cut open showing multiple daughter cysts.

are helpful in reaching to the diagnosis.[3] In index case hematological and biochemical reports provided no clue for diagnosis and serological test was also negative. Serological tests can be beneficial for the diagnosis but their sensitivity depends on the location and growth of hydatid cysts. Serum antibody levels are found to be low when these cysts develop in the human organs like lungs, spleen and kidney. Eosinophilia has been reported in parasitic infestations including hydatid cysts in around 25% to 50 % cases.[3] Our patient had normal eosinophil count. On CT scan typically hydatid cysts are seen as a single large cyst with smaller daughter cysts, of different sizes. In this case CT scan revealed a complex cyst in the lower pole of the left kidney.

Primary renal hydatid disease is very rare. It is commonly found in people who are involved in rearing the sheep. A person can remain asymptomatic for many years.[4] The mechanism of primary renal hydatid disease is not clear yet but it is assumed that cysts must pass through the portal system to reach to the liver and retroperitoneal lymphatics. Closed renal hydatid cyst indicates that it is covered by all three layers while an open cyst lacks the third layer (pericyst). The case where all the three layers have been ruptured and communicate freely with the calyces and renal pelvis, then it is labeled as an open or communicating cyst. When the cyst ruptures, hydatiduria occurs.[5] It is the characteristic finding and patient complaints of passing grape like structures in urine. However, our patient had none of these symptoms.

In most of the cases, treatment is albendazole preoperatively followed by surgical excision.[4] In cases where preoperative diagnosis has been made, the cysts can easily be aspirated by isolating the area around the hydatid cyst and substituting cystic fluid with 20% sodium chloride solution killing the daughter cysts.[3] Since there was a suspicion of malignancy in this case, the kidney was removed along with Gerota's fascia as for radical nephrectomy. Patients from endemic areas are more susceptible for this condition thus presence of hydatid disease must be considered in cases of complex renal cysts.

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