



Pelvic Hydatid Cyst: A Rare Case Report

Prosanta Kumar Bhattacharjee¹, Shyamal Kumar Halder¹, Saibal Chakraborty¹, Aishik Mukerjee¹, Rupesh Singh¹

¹Department of Surgery, IPGMER and SSKM Hospital, Kolkata, West Bengal, India

A 25-year-old farmer from rural Bengal presented in the emergency with acute retention of urine and severe radicular pain along the lower back and back of thighs. He had a history suggestive of bladder outflow obstruction for past 1-year, but no history of retention of urine. Radicular pain and marked constipation were of recent onset. There was no history suggestive of urinary tract infection or significant weight loss. There was no past history of surgery, trauma or other major illness. On examination, the bladder was distended and digital rectal examination revealed an anteriorly placed immobile, nontender, extra luminal soft, cystic pelvic mass. Ultrasonography revealed a cystic mass within pelvis with back pressure changes of the kidneys and ureters, while contrast enhanced computed tomography of abdomen revealed a 10.5 cm × 10 cm thick-walled, nonenhancing, unilocular lesion occupying the pouch of Douglas pressing on the bladder neck anteriorly. An ELISA test for echinococcus antigen was negative. Laparotomy revealed an immobile, retroperitoneal, tense, cystic swelling occupying the entire pelvic cavity containing crystal clear fluid suggesting possibility of hydatid cyst. Exploration of the cyst with scrupulous precautions to avoid spillage showed an endocyst. Endocystectomy with partial pericystectomy was done. Patient had an uneventful recovery. This case report depicts an atypical presentation of isolated primary extra-peritoneal pelvic hydatid cyst in a young male hailing from a nonendemic areas.

Key words: Hydatid disease, pelvis, acute retention of urine

INTRODUCTION

Hydatid disease is a zoonotic infection affecting humans and other mammals, caused by the larval stages of tapeworm belonging to the genus echinococcus. Humans are the accidental intermediate host and become infected when they accidentally ingest eggs of the tapeworm. They are the dead end for the parasites.

Echinococcal cysts are mostly located in the liver (60-70%) and lungs (10-25%), though it can potentially involve any other organ.¹ Extrahepatic localization is reported in 14-19% of all cases of abdominal hydatid and commonly involves the lungs, spleen, kidneys, and pancreas.¹ Involvement of brain, heart, ovary, bone, and abdominal wall has also been reported.² Isolated pelvic hydatid cysts are exceedingly rare around the world and sometimes difficult to diagnose.³

CASE REPORT

A 25-year-old male farmer, hailing from a village of West Bengal, presented in the emergency with acute retention

of urine and severe agonizing pain radiating along the back of thighs. He complained of poor urinary flow, hesitancy, frequency, and sensation of incomplete voiding for the last 1-year. There was no previous episode of retention of urine. His complain of low back pain, with radiation along the back of thighs started 10 days prior to the presentation. His bowel habits were recently altered, constipation being marked for last 2 weeks. There was no history of burning micturition, fever or significant weight loss. The patient belonged to lower socioeconomic class and usually had nonvegetarian diet. He had no past history of surgery, trauma or other major ailment. The patient did not give a history of having travelled to any distant place in the past. Other family members had no significant medical history.

On examination, his vitals were stable, abdominal examination revealed a distended bladder and digital rectal examination revealed an immobile, nontender, extra luminal soft, cystic mass within pelvis anterior to the rectum. Examination of the other systems including neurological examinations was essentially normal. Catheterization, to relieve retention, could be done without any difficulty.

Laboratory investigations revealed mild neutrophilic leukocytosis (total count = 12,000/cu mm; $n = 75\%$, $E = 8\%$). Blood biochemistry and skiagram of chest were normal.

Abdominal ultrasonography revealed a globular, deep-seated cystic lesion, 10 cm in diameter, within pelvis with

Received: June 25, 2014; Revised: December 23, 2014;
Accepted: March 10, 2015

Corresponding Author: Dr. Prosanta Kumar Bhattacharjee,
Flat No. 5, 4th Floor, Suryatoran Apartment, 114/A,
Barasat Road, Kolata - 700 110, West Bengal, India.
Tel: (M): 9434194957, 8902775930. (R): 03325650403.
E-mail: prosantabh@rediffmail.com

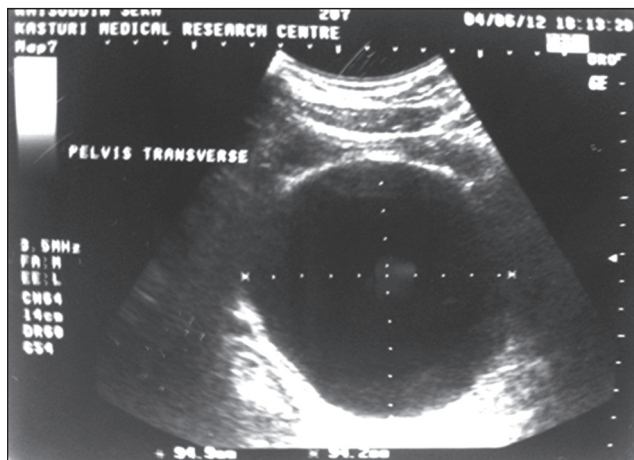


Figure 1. Ultrasonography showing the cyst within pelvis

hydronephrotic, and hydroureteric changes bilaterally. Other abdominal viscera showed no abnormality [Figure 1].

Contrast-enhanced computed tomography (CECT) of the abdomen revealed a 10.5 cm × 10 cm, well defined, unilocular, nonenhancing lesion occupying the rectovesical pouch pushing the rectum, and anal canal toward left and urinary bladder anteriorly. The wall of the lesion was thick, smooth, and regular. No definite solid component or debris was evident within it [Figure 2]. Features of obstructive uropathy were also evident. Though no definite radiological diagnosis was available, the possibilities suggested were, cystic hamartoma, lymphangioma, and hydatid cyst. An ELISA test for echinococcus antigen was negative.

Laparotomy, done with the above possibilities and a tailgut cyst or rectal duplication cyst in mind, revealed an immobile retroperitoneal, tense, cystic swelling occupying the entire pelvic cavity. Aspiration revealed crystal clear fluid which raised the suspicion of hydatid cyst. The cyst was completely isolated from surrounded structures by mops soaked in 10% povidone iodine and injected with hypertonic saline. Incision on the pelvic peritoneum and the cyst wall revealed a white endocyst. Endocystectomy with partial pericystectomy was done without any intraperitoneal spillage and the margins of the pelvic peritoneum and remnant ectocyst sutured. Abdomen was closed after putting drains inside the cyst and peritoneal cavities. Patient had an uneventful postoperative recovery. He could void normally from the 5th day and was also completely relieved of his back pain.

Postoperatively, the patient received albendazole 10 mg/kg, for 3 months.

DISCUSSION

Extra-peritoneal hydatid cyst usually occur secondary to rupture of hepatic hydatid or accidental spillage of the daughter

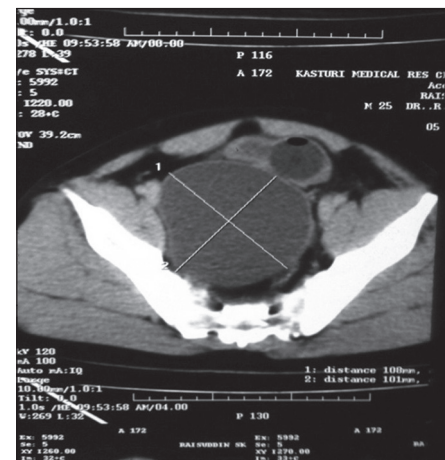


Figure 2. Contrast-enhanced computed tomography of abdomen showing the cyst within pelvis in relation to the rectum and urinary bladder

cysts during surgery. Primary intra-abdominal but extra-peritoneal localization has been reported in only 0.8% cases.³ Adult males are most commonly affected, the most common presentation being an abdominal mass.⁴ Primary extra-peritoneal hydatid cysts have mostly been reported from Mediterranean regions where the disease is endemic.⁴ A small primary hydatid cyst of the liver may rupture and then undergo spontaneous resolution, while their content gets seeded into the pelvis.⁵ This is the probable pathogenesis of isolated pelvic hydatid cyst.

Pelvic hydatid cysts can grow to considerable size, occupy the entire pelvis, and can cause urinary tract symptoms as observed in this reported case.⁶

Though the presence of daughter cysts on CECT is pathognomonic, in some situations the final diagnosis is possible only on exploration, as was the case with us.

Our patient is worth reporting as he hailed from a nonendemic area, and preoperative clinical examination, radiological or serological studies did not give any definite lead toward the diagnosis of hydatid disease.

CONCLUSION

Primary hydatid cyst in pelvis, located extraperitoneally, is an uncommon entity and likely to pose diagnostic difficulties for both clinicians and radiologists; it should therefore, be kept in mind in the differential diagnosis of space-occupying lesions in this location even in nonendemic areas especially by doctors working in tourism opening areas.

REFERENCES

1. Tsaroucha AK, Polychronidis AC, Lyrantzopoulos N, Pitiakoudis MS, Karayiannakis AJ, Manolas KJ, *et al.*

Pelvic hydatid cyst

- Hydatid disease of the abdomen and other locations. *World J Surg* 2005;29:1161-5.
- Hamamci EO, Besim H, Korkmaz A. Unusual locations of hydatid disease and surgical approach. *ANZ J Surg* 2004;74:356-60.
 - Engin G, Acunas B, Rozanes I, Acunas G. Hydatid disease with unusual localization. *Eur Radiol* 2000;10:1904-12.
 - Akbulut S, Senol A, Ekin A, Bakir S, Bayan K, Dursun M. Primary retroperitoneal hydatid cyst: Report of 2 cases and review of 41 published cases. *Int Surg* 2010;95:189-96.
 - Angulo JC, Escibano J, Diego A, Sanchez-Chapado M. Isolated retrovesical and extrarenal retroperitoneal hydatidosis: Clinical study of 10 cases and literature review. *J Urol* 1998;159:76-82.
 - Izol V, Eken A, Aridogan IA, Koltas S, Tansug Z. Acute urinary retention due to cystic echinococcosis: A case report. *Can Urol Assoc J* 2012;6:E192-4.

