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Case Report

Unusual Presentation of Retrovesical Hydatid Cyst: Report of Three Cases

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ABSTRACT

Hydatid disease may occur in any organ of the human body, but an isolated retrovesical hydatid (RVH) cyst is rare. We report two cases of isolated RVH cyst - one mimicking an ovarian cyst, the other presenting as acute urinary retention - and a third case of RVH cyst associated with bladder and rectal fistula and a hepatic hydatid cyst.

Keywords: Retrovesical hydatid cyst, bladder fistula, rectal fistula, pelvic cystic mass.

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INTRODUCTION

Cystic hydatid disease is a widely distributed endemic parasitosis. Eggs of the adult tapeworm, *Echinococcus granulosus*, which lives in canine small intestine, are ingested by herbivores. When humans become infected, an abortive parasitic cycle develops. By penetrating the intestinal mucosa, the larval form reaches the blood and lymphatic circulation and is further transported to the liver, lung and other organs[1]. Hydatid cysts may occur in almost any viscus. In terms of frequency, renal involvement follows hepatic, pulmonary and peritoneal involvement[2].Retrovesical hydatid (RVH) cyst is a rare occurrence. We report three such cases with unusual presentation - one case mimicking an ovarian cyst, one presenting as acute urinary retention and one presenting in association with bladder and rectal fistula.

CASE REPORTS

Case 1

A 35-year-old female patient presented with an intra-abdominal mass in the hypogastric area and a history of vague lower abdominal pain of 6 months duration. Physical examination revealed a 12 x 12 cm mass in the hypogastrium, mobile from side to side, and arising out of the pelvis. On vaginal examination the mass was found to be separate from the uterus and it was adnexal in location. The results of all blood tests were normal. Ultrasonography revealed a large sonolucent cyst in the lower abdomen, while CT scan showed a well-defined, hypodense, multiseptate mass behind the urinary bladder and anterior to the uterus (Fig. 1). The liver, spleen and other viscera were normal. An ovarian cyst was suspected, and the patient was therefore transferred to the gynecology department. During operation a tense, cystic swelling was encountered behind the bladder, compressing the bladder inferiorly. On opening the cyst there were obvious daughter cysts. Total excision of the hydatid cyst was performed and local irrigation was done with hypertonic saline. The post-operative period was uneventful. The patient received albendazole 10 mg/kg/day for 3 months. Follow-up ultrasound 5 months after the intervention

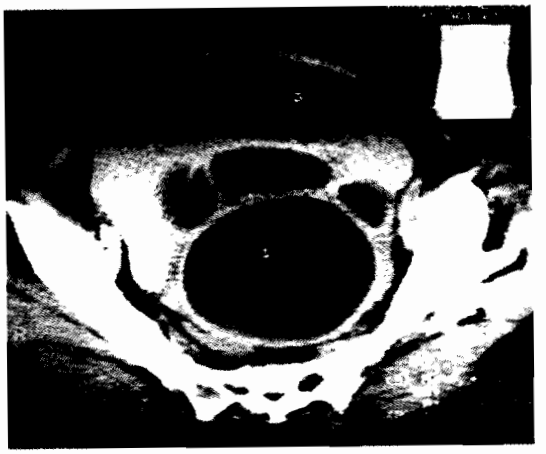

Fig. 1:CT scan showing multiseptate retrovesical hydatid cyst compressing the urinary bladder anteriorly.

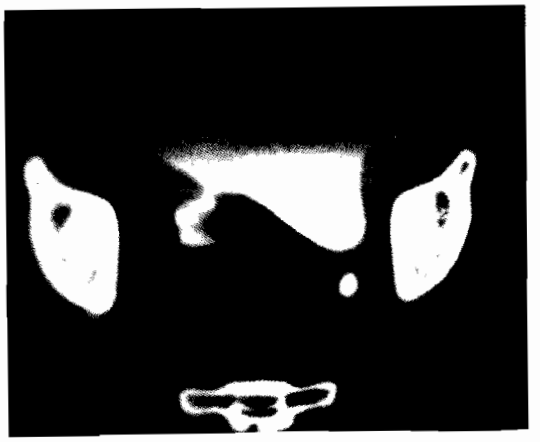

Fig. 3: CT scan showing a fistulous communication between the retrovesical hydatid cyst and the urinary bladder. The rectum is pushed aside and the lumen is obscured.

did not show any recurrence in the abdomen or pelvis.

Case 2

A 70-year-old male patient presented with lower urinary tract symptoms and a hypogastric mass of 6 months duration. He reported passing membranes per urethram. All biochemical and hematological parameters were normal and the urine culture was sterile. Pelvic ultrasound revealed an anechoic retrovesical cyst pressing on the bladder anteriorly. CT scan revealed a cyst fistulating into the

Fig. 2 : CT scan showing retrovesical hydatid cyst with gas bubbles in the cyst and urinary bladder.

rectum and bladder (Fig. 2, 3) and a single hepatic cyst. Casoni's test for hydatidosis was positive. After transurethral catheterization, vesical irrigation was performed with 150 ml of hypertonic saline. The catheter was subsequently left indwelling. Surgery was not possible due to the patient's poor physical condition. Instead, he received albendazole 10 mg/kg/day for 3 months. The patient was lost to follow-up.

Case 3

A 50-year-old male patient presented with acute urinary retention and a suprapubic mass. A urethral catheter was placed to relieve the retention. The suprapubic mass did not resolve completely after catheterization. Ultrasound revealed a thick-walled cystic mass in the retrovesical area. All hematological and biochemical parameters were normal, including the eosinophil count. Casoni's test was positive. The patient underwent exploratory surgery. The cyst behind the bladder was aspirated, opened and irrigated with 10% betadine solution. Endocystectomy and partial ectocystectomy were performed. Histopathological examination confirmed hydatid disease. Postoperatively, the patient received albendazole for 3 months. At 18 months of follow-up he is doing well without recurrence of the disease.

DISCUSSION

RVH cyst is an unusual entity even in endemic areas and accounts for 0.1-0.5% of hydatid cases[3]. Various theories on its etiology include rupture and subsequent seeding in the pouch of Douglas[4], hematogeneous seeding or direct spread through the rectosigmoid mucosa to the pelvis and perivesical venous plexus[5]. The presentation of an isolated RVH cyst poses a diagnostic dilemma for the clinician, as it may mimic other diseases, such as rectosigmoid neoplasm, ovarian neoplasm, hydrosalpinx, tubal pregnancy, cyst of the seminal vesicle, large ectopic ureterocele, posterior bladder diverticulum, urachal cyst etc[6]. Therefore a high degree of suspicion of hydatid cyst should be maintained for the selection of the surgical approach and the prevention of allergic reaction and operative spillage.

Symptoms caused by pressure on the adjacent viscera, such as voiding symptoms, constipation, suprapubic mass and renal insufficiency, may imply the presence of RVH cyst[6,7]. Involvement of the seminal vesicles may lead to hematospermia. In female patients a lower abdominal RVH cyst may be misdiagnosed as an ovarian cyst. A pelvic cystic mass should arouse the suspicion of RVH cyst, especially in endemic areas. High intra-cystic pressure can cause pressure atrophy of the wall of adjacent hollow viscera and may lead to fistulization[8].

We conclude that a detailed history and high degree of suspicion along with serological tests help in the diagnosis of RVH cyst. Ultrasonography and CT help to determine the exact location and to exclude cysts in other locations. A combination of medical therapy and surgical debulking procedures, such as enucleation, will relieve the symptoms and prevent future recurrences, particularly when the cyst is located in the retrovesical position[7]. Total cystopericystectomy is fraught with danger of injuring surrounding viscera.

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Editorial Comment:

Endemic hydatidosis is not uncommon in rural areas of India and other countries. Hydatid cysts in the urinary system are usually more common in the kidney. The approach described in the two operated cases was correct. A transvesical transtrigonal approach to debulk and clear the cysts could be a good approach when the diagnosis is known prior to surgery. Another safe option today could be laparoscopy.

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