Primary pelvic hydatid cyst causing acute urinary retention

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Accepted 11 May 2022

DESCRIPTION

A man in his late 30s came to our hospital with a complaint of urinary retention for 12 hours. A Foley catheter was inserted to relieve his discomfort. He had a history of difficulty in passing urine, a sense of incomplete bladder evacuation and increased frequency for the last 2 years. There was no history of burning micturition, fever, weight loss, previous surgery or bladder catheterisation. On abdominal examination, the suprapubic region was mildly tender on palpation and dull on percussion. His routine blood and serological investigations were unremarkable. He underwent an ultrasound examination from another hospital which revealed a large, well-defined, hypoechoic space-occupying lesion in the pelvic region, posterior to the urinary bladder. He was advised to undergo contrast-enhanced CT (CECT) for further evaluation, which revealed a large, fluid density non-enhancing lesion with multiple internal septations and daughter cysts in the pelvis (figure 1A). The lesion pushed the bladder anteriorly and compressed its neck (figure 1B), and obstructed the bladder outlet. The CT images also showed mild bilateral hydroureteronephrosis (figure 1C).

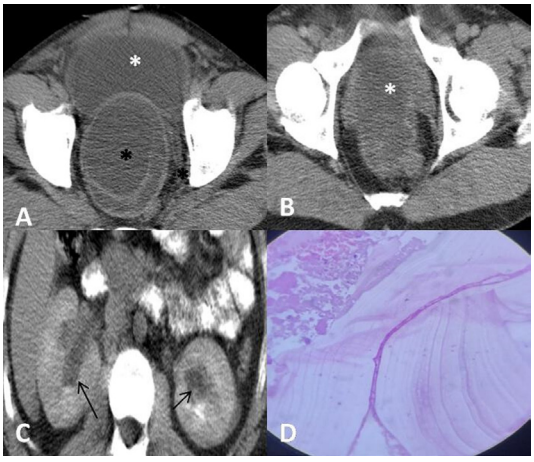

Figure 1 Axial sections from contrast-enhanced CT abdomen (A) a large, well-defined cystic lesion with internal septations (hydatid cyst, black asterisk) pushing the bladder anteriorly (white asterisk). The lesion is causing bladder neck compression (B, white asterisk) and resultant hydroureteronephrosis (C, black arrows). (D) 40× histo-pathological examination (HPE) image from the surgical sample showing laminated cystic wall comprising of endocyst, ectocyst and pericyst surrounded by fibroblastic tissue.

Learning points

- Pelvic hydatid cysts are a rare cause of urinary obstruction.
- CT provides an accurate diagnosis and detailed anatomical relationships which may be needed for surgery.

Based on symptoms and radiological findings, a diagnosis of pelvic hydatid cyst was suggested. The patient was prescribed oral albendazole (10 mg/kg/day) for 4 weeks prior to the surgery to reduce the risk of spillage and anaphylaxis. After 4 weeks, he underwent laparoscopic surgery, and the histopathology examination confirmed the diagnosis of the hydatid cyst (figure 1D). Postoperatively, he was prescribed albendazole (10 mg/kg/day) for 12 weeks and has been asymptomatic.

The Echinococcus tapeworm species cause hydatid cysts. Pelvic hydatid cysts are extremely rare, with an incidence of 0.2%–2.25%.[1] A hydatid cyst in the pelvic cavity is primary only when no other cysts are present in the body. Due to its location in a fixed bony pelvic cavity, the symptoms occur because of the external pressure affecting the adjacent pelvic organs. Urinary retention in men may result from using certain medications like opioid analgesics to prostatic pathologies or urethral or bladder neck strictures. Pelvic hydatid cyst should always be a differential when there is a large, multicystic lesion on ultrasound, especially in endemic areas. Ultrasound, CECT and clinical details are essential in reaching the diagnosis. Conventional open cystopericystectomy or laparoscopic surgery is the gold standard treatment for hydatid cysts.[2] Prophylaxis with albendazole makes the cyst sterile, killing most of the protoscolices and thus reducing the chances of recurrence.[3] The literature search revealed only a few cases (less than five) of documented primary pelvic symptomatic hydatid cysts.[4]

Contributors BD and RS contributed to the planning, conduct, reporting, conception and design, acquisition of data, or analysis and interpretation of data. TT and SG contributed to the acquisition of data and interpretation of data.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Consent obtained directly from patient(s).

To cite: Dua B, Sharma R, Tiwari T, *et al*. *BMJ Case Rep* 2022;**15**:e250627. doi:10.1136/bcr-2022-250627

Provenance and peer review Not commissioned; externally peer reviewed.

Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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