Prostatic urethral cyst: a rare cause of acute urinary retention in a young male

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DESCRIPTION

A 31-year-old male medical professional presented with acute urinary retention. He had frequency, straining and sense of incomplete emptying of 3-day duration. There was no history of dysuria, fever or urethral instrumentation. He is unmarried and sexually inactive. On examination, he was conscious and his vitals were stable. Systemic examination showed palpable urinary bladder up to umbilicus suggestive of urinary bladder outlet obstruction. Ultrasonography of the abdomen showed cystic structure 2×2 cm at the bladder neck and bilateral kidneys were normal. A 14-Fr Foley catheter was placed for relief of urinary retention, which recorded 630 mL of residual urine. Routine work-up, including haemogram, renal function and urine analysis, was normal. A contrast-enhanced CT of the abdomen with urography showed a well-defined cystic lesion arising from prostatic urethra and projecting into urinary bladder lumen suggestive of prostatic cyst (figure 1A,B). Rest of the urinary bladder, prostate and kidneys was normal. He was counselled about the various possible differential diagnoses and treatment options, including needle aspiration and transurethral resection. Patient chose to undergo transurethral resection of cyst, which was done under regional anaesthesia. Intraoperatively, urinary bladder showed mild trabeculations and 1×2 cm thick walled cyst was seen extending from 6 o'clock to 10 o'clock position at bladder neck causing narrowing of the lumen (figure 2A,B). Clear fluid was aspirated endoscopically. Using 26-Fr resectoscope, complete resection of prostatic cyst was done and 22-Fr three-way Foley's catheter was placed with continuous bladder irrigation (figure 2C,D). Postoperative period was uneventful. Histopathological examination showed cyst wall lined by transitional epithelium

Figure 2 Intraoperative images showing (A) trabeculated urinary bladder suggestive of bladder outlet obstruction, (B) epithelial lined cystic lesion in prostatic urethra at the level of urinary bladder neck extending from 6 o'clock to 10 o'clock position, (C) resection of cyst and (D) raw area with widely opened urinary bladder neck after cyst resection.

of prostatic urethra comprised of fibrocollagenous tissue and smooth muscle fibres. At 3-month follow-up, he is asymptomatic and doing well. Prostatic cyst has an incidence of around 5% in the referral population and around 1% of these cases have a symptomatic presentation.¹ Common symptoms associated with prostatic cysts include dysuria, haematuria, haematospermia, infertility and recurrent urinary tract infection. Acute urinary retention is an uncommon presentation for prostatic cysts. Imaging such as ultrasound, CT or MRI could assist in the diagnosis. Common differential diagnosis includes Mullerian duct cysts, bladder diverticulum, seminal vesicle cyst and Wolffian duct cyst.² Furuya *et al* classified prostatic cyst on imaging based on its communication with urethra and seminal vesicles.³ Symptomatic prostatic cysts require active intervention. Ultrasound-guided aspiration or endoscopic marsupialisation, transrectal ultrasound-guided aspiration and excision of cyst are the current treatment modalities being used. Lee *et al*⁴ and Chang *et al*⁵ have reported transurethral resection of prostatic cyst aids in complete removal of cyst and resolution of symptoms with no long-term complications. Though it is rare, prostatic cysts should be kept as a differential diagnosis in a young male presenting with urinary retention.

Figure 1 Contrast-enhanced CT of the abdomen with urography images. (A) Axial image showing cystic lesion at the level of urinary bladder neck projecting into the lumen. (B) Coronal image showing cystic lesion arising from prostatic urethra with bilateral normal excretory kidneys.

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Images in...

Patient's perspective

I am pleased with treatment and proper guidance by the whole team of doctors.

Learning points

- ▶ Prostatic urethral cyst is a rare cause of acute urinary retention.
- ▶ Transurethral complete resection of cyst is the preferred surgical choice with possibly less chance of recurrence.

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