Ectopic opening of vasa deferentia into a prostatic utricle cyst

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A B S T R A C T

Prostatic utricle cysts result from incomplete regression of the Müllerian duct remnant or decreased androgenic stimulation of the urogenital sinus. Children usually present with urinary tract infections (UTIs), irritative symptoms and urine retention, although some cases are asymptomatic. These cysts sometimes can cause a palpable abdominal mass, urethral discharge, terminal hematuria and recurrent epididymitis. A high incidence of such cysts is seen in boys with hypospadias, especially the more proximal types.

1. Introduction

Prostatic utricle cysts result from incomplete regression of the Müllerian duct remnant or decreased androgenic stimulation of the urogenital sinus. Children usually present with urinary tract infections (UTIs), irritative symptoms and urine retention, although some cases are asymptomatic. These cysts sometimes can cause a palpable abdominal mass, urethral discharge, terminal hematuria, and recurrent epididymitis. A high incidence of such cysts is seen in boys with hypospadias, especially the more proximal types.

2. Case description

A 4-year-old child presented to our institute with repeated attacks of urinary tract infections (UTIs), despite receiving multiple doses of antibiotics from his pediatrician. He had a history of penoscrotal hypospadias, for which he underwent staged operations till complete repair. The child was examined and calibrated under sedation, which revealed an adequate caliber urethra with no strictures. Ultrasound renal assessment revealed a cystic structure insinuated behind the bladder. Cystoscopy showed a huge, dilated cyst arising from the posterior urethra, about 10 cm, with normal-looking orthotopic ureteric openings. Voiding cystourethrogram (VCUG) confirmed the presence of the huge cyst arising posteriorly from the urethra and filling in voiding films (Fig. 1A). Hence, the diagnosis of prostatic utricle cyst was confirmed.

The decision was to excise the cyst to prevent recurrent UTIs and orchitis. Rendezvous technique with laparoscopy and cystoscopy to trans-illuminate the cyst was performed. With this technique, it was easy to identify the cyst and dissect around it. Regrettably, both vasa efferentia were ectopically inserted in the cyst (Fig. 1B); thus, the decision was to remove the cyst and tie the terminal ends of both vasa efferentia. However, after counseling with the mother, she refused to complete the procedure despite medical advice.

3. Discussion

Müllerian remnants-related cystic lesions are relatively uncommon, with more than 100 cases having been reported. However, the presence of ectopic opening of the vas deferens into the prostatic utricle cyst is extremely rare, with 10 cases reported in the English literature. Ultrasonography is the easiest imaging technique to detect a prostatic utricle cyst. Although computed tomography and magnetic resonance imaging are accurate in detecting these lesions, they do not add further information to pelvic ultrasound. Enlarged utricle can be readily demonstrated by VCUG, and sometimes if there was no connection to the urethra, it may reveal an extrinsic compression of the urethra, or even of the bladder neck.

Suprapubic postvesical or transvesical excision, transrectal drainage, posterior sagittal transanal approaches, and various transinguinal techniques have all been used in the past, all of which have limited anatomical visibility and the potential for significant morbidity due to iatrogenic damage to adjacent structures. Endoscopic approaches have been described, with a urethroscope used to resect the internal wall of the utriculus, have been described. However, laparoscopy is a safe alternative to all these methods because it provides better cosmesis, better visualization of adjacent structures, and possibly reduced morbidity from iatrogenic injury. In this case, we used the rendezvous cystoscopy-laparoscopy. In this technique, the cystoscopy acts as a
“guiding light for initial identification of the cyst and provides a “counter-traction” during the procedure to facilitate dissection in the space between the bladder and the utricle.” Unfortunately, we started this procedure but did not continue after the parents’ consultation when we found both vasa deferentia entering through the cyst.

To sum up, spontaneous co-existence of prostatic utricle cyst and ectopic inserted vas is extremely rare. It is of paramount importance to counsel the parents as regards the optimum management of this condition especially concerning jeopardizing the vas deferens.

Authors’ contributions

AE assisted in drafting the initial manuscript, MK, MA performed the critical revision. All authors read and approved the final manuscript.

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Declaration of competing interest

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