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Prostatic utricle cyst presenting with recurrent urethral discharge in the newborn: A case report

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ABSTRACT

A 6 month old boy with normal external genitalia, presented with purulent urethral discharge from the neonatal period and recurrent urinary tract infections. Radiologic and urethroscopic evaluation showed a midline structure connected to the prostatic urethra and discharging with pus. This structure, considered to be a prostatic utricle cyst was successfully drained endoscopically.

Key Words: Prostatic utricle; urethra; cyst; children.

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Introduction

The prostatic utricle is thought to originate from incomplete regression of the Mullerian ducts or incomplete closure of the urogenital sinus. Cysts formed by the prostatic utricle are usually asymptomatic and are incidental findings on ultrasound or micturating cystourethrography in young males undergoing evaluation for other urologic concerns [1-3]. We present a rare, previously unreported case of utricular cyst presenting with recurrent urethral discharge and urinary tract infection (UTI) from the newborn period in a child with normal external genitalia.

Case

A 6 month old boy presented with persistent purulent urethral discharge noticed to stain his nappies from the first week after birth. He was however, clinically well until a first episode of UTI at 3 month of age and a second UTI at 5 months of age. Klebsiella species was isolated from urine culture on both occasions. Physical examination revealed a healthy looking boy with no palpable abdominal masses and normal looking external genitalia. However, a purulent discharge was found to stain his nappy each time it was changed. An abdominal ultrasound scan revealed a solitary right kidney with a normal bladder but a large pus filled pelvic cystic structure (measuring 33 x 42 x 48 mm) located posterolateral to the left side of the bladder [Fig. 1]. A retrograde urethrogram outlined a tubular structure arising from the posterior urethra [Fig. 2].

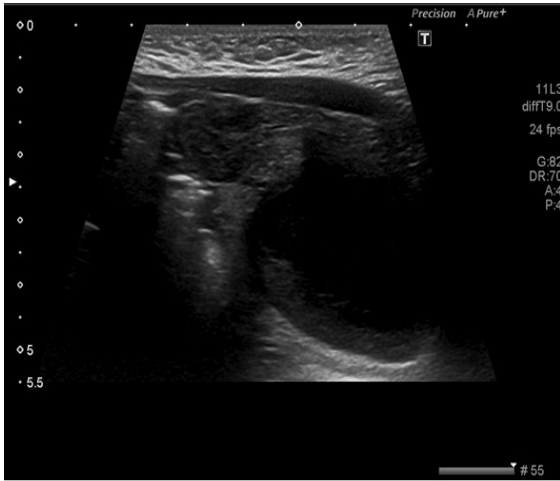


Fig. 1. Ultrasound scan showing a cystic swelling posterolateral to the bladder. The swelling remained unchanged after the bladder was completely emptied on micturition.



Fig. 2. Retrograde urethrogram outlining a tubular structure from the posterior urethra

In theatre, pus was expressed out from the urethral meatus on milking the posterior urethra [Fig. 3] and urethroscopy found pus exuding from an orifice which was communicating with the prostatic urethra [Fig. 4]. This orifice was incised and followed to a large cavity filled with pus located behind the bladder and communicating with the prostatic urethra [Fig. 5].



Fig. 3. Purulent discharged at the urethral meatus on milking the posterior urethra.



Fig. 4. Cystoscopic view of the posterior urethra showing purulent discharge from the posterior urethra.



Fig. 5. Cystoscopic view of abscess cavity after pus was drained.

This pus filled cavity was considered to be a prostatic utricle cyst and was thought to be the cystic swelling seen posterolateral to the bladder on ultrasound and also as the source of the persistent purulent urethral discharge. The pus was drained out from the cavity and *Klebsiella* species were isolated on culture. The child had no purulent urethral discharge postoperatively. There was no UTI on review at 3 months and an abdominal ultrasound showed no evidence of the cystic pelvic mass.

Discussion

Prostatic utricular cysts are very rare cysts which result from incomplete regression of the Mullerian ducts or incomplete androgen-mediated closure of the urogenital sinus [1,2]. They are lesions that are connected to the middle of the verumontanum via an orifice that leads to the posterior urethra and may be appropriately considered as diverticulum attached to the urethra [3].

These cysts are different from Mullerian duct cysts. Utricular cysts are tubular or vesicular in shape, mostly seen in young patients with proximal hypospadias or intersex disorders and they usually communicate with the urethra. Mullerian duct cysts generally do not communicate with the prostatic urethra, are round in shape and present in adults with normal external genitalia [1,4].

The majority of utricular cysts are asymptomatic. Symptomatic utricular cysts may present with recurrent urinary tract infection, urethral discharge, epididymitis, post void urine dribbling or urinary incontinence [5-7]. Although utricular cyst presenting with recurrent UTI [8] or in children with normal external genitalia [9] have been reported, our case is unusual because to the best of our knowledge, this is the first report of utricular cyst presenting with recurrent

urethral discharge and UTI from the neonatal period in a child with normal external genitalia.

These patients are investigated with abdominal and pelvic ultrasound scans as well as a micturating cystourethrogram and or an ascending urethrogram which may outline the cyst with its communication to the urethra as was seen in this case. An abdominopelvic ultrasound of our patient showed a cystic swelling postero-lateral to the left side of the bladder, similar to that of the case presented by Al- Salem and Ahmed [9].

Surgical treatment should be reserved only for symptomatic utricle cysts. The definitive treatment of symptomatic utricular cyst is open excision or laparoscopic excision but endoscopic transurethral cyst drainage, cyst orifice dilatation, incision and deroofting have been described as well [10-12]. Our patient was treated endoscopically by cyst orifice incision and drainage with successful outcome.

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