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Congenital scaphoid megalourethra associated with posterior urethral valve: A case report

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ABSTRACT

Congenital scaphoid megalourethra is a very rare congenital anomaly of the anterior urethra in males. Here, a case of scaphoid megalourethra and posterior urethral valves is presented. A one and half year old male child came to us with complaints of ballooning at the tip of penis since birth. Micturating cystourethrogram showed a dilated glanular urethra. The patient underwent a Nesbitt's longitudinal reduction urethroplasty with a single-staged, single layered repair. Post-operatively, the child passed a healthy stream of urine without straining.

Keywords: Megalourethra; urethral anomalies; valves; Nesbitt's reduction urethroplasty,

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Introduction

Congenital scaphoid megalourethra is a rare congenital anomaly involving the corporal tissues of anterior urethra causing dilatation [1]. Moreover, its association with posterior urethral valves is still rarer [2,3]. Patients present with ballooning of the glanular part of the penis and straining during micturition. In addition, this congenital pathology may be accompanied by other congenital urological anomalies [1-3]. We describe a rare combination of the case of a one and half year old male patient presenting with these complaints and discuss its treatment.

Case report

A one and half year old male came to us with complaints of ballooning at the tip of penis and dribbling micturition, since birth [Fig. 1]. There was no history of burning micturition, pyuria, hematuria or any other urinary complaints. On 7th day of life, he had undergone cystoscopic posterior urethral valve fulguration in a private hospital.

Renal function tests were normal. Ultrasonography of renal system was also

normal. Micturating cystourethrogram showed a large, dilated glanular urethra [Fig. 2].

Fig. 1. Clinical photograph.

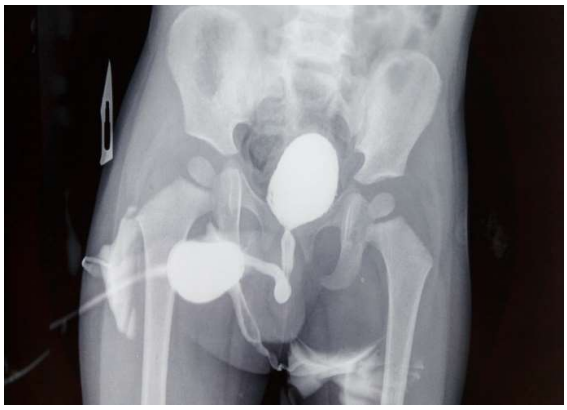

Fig. 2. Micturating cystourethrogram.

Patient underwent a cystoscopy, which was found to be normal. There were no residual valves present.

A Nesbitt's longitudinal reduction urethroplasty with single layered single staged repair was done [4] [Fig. 3,4]. A 7Fr infant feeding tube was kept as a urethral stent and removed on post-operative day 10. Patient passed urine in a healthy, single stream.

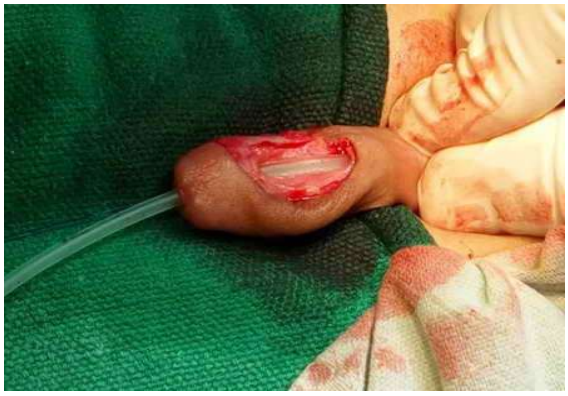

Fig. 3. Reduction urethroplasty.

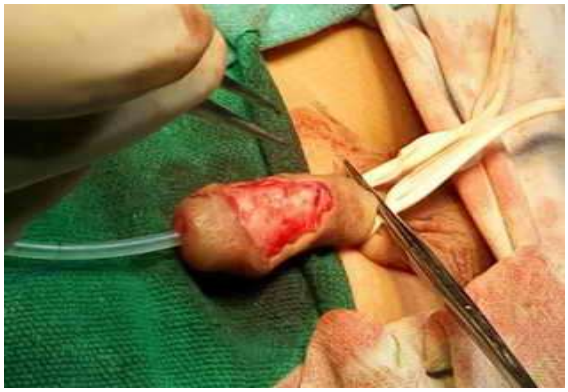

Fig. 4. Single layered repair.

Discussion

Congenital megalourethra is a rare anomaly involving the male anterior urethra. The exact cause is not clearly known but is believed to be due to a defect in migration, differentiation or development of mesenchymal tissues of the phallus or due to delayed canalization of granular urethra associated with maldeveloped corporal tissues [5]. Poor development of erectile tissues causes urinary stasis and dribbling [6].

There are two types of congenital megalourethra- scaphoid and fusiform. Scaphoid is the more common and milder form. It involves only the corpus spongiosum of anterior/ penile urethra. Fusiform type is the rarer and more severe form involving a relatively long segment of corpus spongiosum and corpora cavernosa of the anterior urethra

[7]. 100% of fusiform type and around 80% of scaphoid type are associated with urological anomalies [1,8]. The commonly associated anomalies are renal dysplasia-hypoplasia, hydronephrosis, hydroureter, vesicoureteral reflux, prune-belly syndrome, urethral duplication, megacystis, hypospadias, posterior urethral valves, and undescended testes. Other system anomalies including VATER (vertebral, anal atresia, trachea-esophageal fistula, and renal anomalies) and VACTERL (vertebral, anal atresia, cardiac, trachea-esophageal fistula, renal, and limb deformities) are described [9].

Our patient was a one and half year old male child having scaphoid megalourethra associated with posterior urethral valves. There was no other renal system anomaly found. A Nesbitt's longitudinal reduction urethroplasty was done with repair being done in a single layer and single stage. No local tissue cover was used as intermediate layer before skin closure. Urethra was stented for 10 days with 7 Fr infant feeding tube and removed. Patient passed urine in a single, healthy stream without dribbling or straining.

Compliance with ethical statements

Conflicts of Interest: None.

Financial disclosure: None.

Consent: Written informed consent was obtained from the parent of the patient.

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