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Case Report

Prolapsing posterior urethral polyp with hypospadias in a neonate

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ABSTRACT

Urethral polyps occur as polypoidal masses of urethra. These lesions predominantly present as solitary lesions rather than multifocal growths. These constitute approximately 1% of all benign urogenital neoplasms making them a rare entity. A male neonate presented at birth with a prolapsing urethral mass through a proximal penile hypospadiac meatus. After thorough evaluation for other associated anomalies patient underwent excision of the mass. Histopathology revealed a fibroepithelial polyp. Urethral polyp is a rare anomaly of the urethra. Surgical management is tailored to the specific nature and location of the polyp and the patient's general condition. Surgical excision should be undertaken with utmost care of local tissues.

Keywords: Hypospadias, Neonatal urethral polyp, Urethral polyp

INTRODUCTION

Males present during childhood and early adolescence with urethral polyp.[1-3] Fibroepithelial polyps have an inclination for specific parts of the urethra. Urethral polyps occur primarily within posterior urethra with verumontanum being the frequent point of origin.[4,5]

Patients usually present with obstruction, voiding dysfunction or hematuria. Coexistence of other congenital anomalies with urethral polyps have been reported. These polyps are benign fibroepithelial lesions having a low recurrence rate.

CASE REPORT

A 1-day male child presented with a mass protruding through a ventral urethral opening and not passing urine since birth. On clinical examination, a red polypoidal structure was seen prolapsing through a proximal penile hypospadias (Figure 1). The structure had a thick stalk arising from within the urethra. Both testes were descended. No other congenital anomalies were noted. Postnatal ultrasonography was normal.

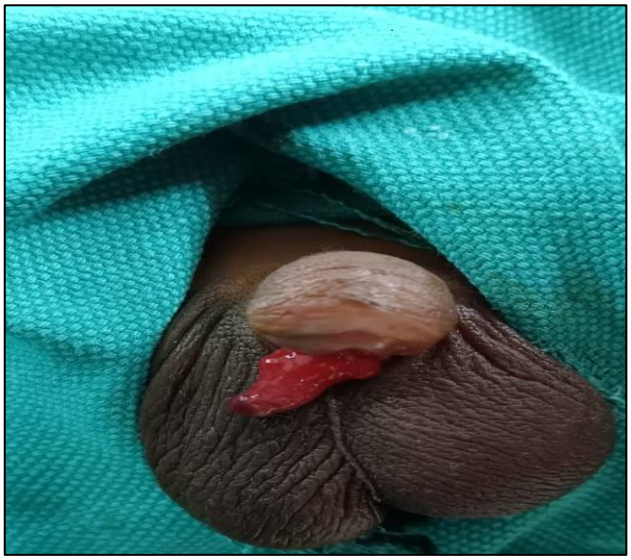

Figure 1: Urethral polyp.

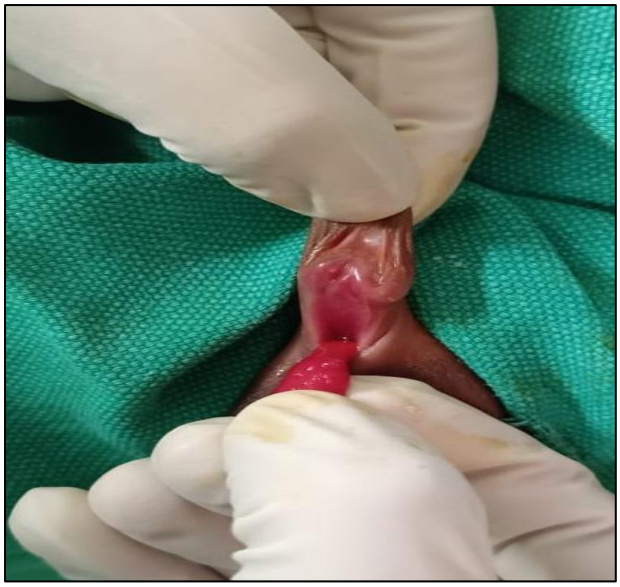

Figure 2: Prolapsing polyp with thick stalk.

Urinary catheterization was done to relieve retention. A voiding cystourethrogram (VCUG) demonstrated a dilated posterior urethra with a normal unobstructed voiding pattern and no vesicoureteric reflux. At cystoscopy, the stalk was noted in the posterior urethra at 5 O'clock position just distal to verumontanum. As patient had proximal penile hypospadias, the polyp could be pulled out to visualize and transfix the base with excision of the polyp. Postoperative course was uneventful. Histopathological examination revealed a polypoidal structure with fibro collagenous tissue with stratified squamous epithelium suggestive of congenital benign fibroepithelial polyp. Patient is awaiting definitive hypospadias repair.

DISCUSSION

Urethral polyps are infrequently seen. They tend to occur more often in males than females.[6] It is hypothesized by Walsh et al that these polyps occur as a result of the invagination of glandular tissue in the prostate's inner region. Kuppuswami et al and Moors et al attributed development of the polyps to maternal estrogen response. Posterior urethral polyps are thought to be remnants of Müller's tubercle that failed to regress as compared to anterior urethral polyps that arise from the dorsal 12 'O' clock position deep within the bulbar urethra.[7] The exact cause of these lesions is still unknown.

Generally, these tumors are benign. In younger children, they might be hamartomatous growths or a reaction to inflammation, while in older children; they are congenital fibroepithelial polyps, most frequently presenting between the ages of 7 and 9.[1,2,4] These patients may exhibit intermittent blockage or acute retention of urine as a result of urethral obstruction or polyp prolapse into the bladder. They may also present as hematuria or recurrent infections. Large polyps with long stalks may present with strangury. Kearney et al, demonstrated obstruction (48%) as the most common presenting symptom with hematuria (27%) and retention (25%) being next in sequence.[7] Other differentials to be considered while evaluating polypoidal urethral lesions are foreign bodies, calculi, blood clots, submucosal fibromatosis, ectopic ureterocele, polypoidal hemangioma or urogenital rhabdomyosarcoma, which often presents as an interlabial mass in females.[8] In polyps that are inconspicuous in nature, the diagnosis is made by a voiding cystourethrogram and confirmed by cystoscopy. Larger polyps may be diagnosed by routine ultrasonography showing characteristic to and for mobility. Cystourethroscopy helps in direct visualization of lesion.[9]

The treatment of choice is transurethral endoscopic resection. The polyp after resection is pushed into the bladder. If transurethral resection is not possible, due to large polyp, wide base of polyp or inadequate instrumentation, then open transurethral excision can be done in anterior urethral polyps and supravesical approach for large polyps near bladder neck.[7,10] A complete surgical resection offers effective treatment for urethral polyps and prevents recurrence of the lesions. In our patient, as there was associated proximal hypospadias it was possible to extract the lesion from the hypospadiac meatus, visualize the thick base and transfix and excise the polyp under vision. He awaits a hypospadias repair.

CONCLUSION

A concomitant presentation of urethral polyp with hypospadias in the neonatal age group is a rare occurrence. Prior to surgical intervention a cystourethroscopic evaluation is warranted to confirm the location and nature of the polyp and condition of the urethra. At time of surgical resection, care should be taken to reduce damage to the native urethral mucosa so as to minimize the effect on subsequent urethroplasty.

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