Case Report

Concealed Male Epispadias
A Rare Form of Penile Epispadias Presenting As Phimosis

Alireza Sina,[1] Farshid Alizadeh[2]

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[1]Alborz Faculty of Medicine, Bahonar Hospital, Karaj, Iran
[2]Isfahan Urology and Renal Transplantation Research Center, Alzahra Hospital, Isfahan University of Medical Sciences, Isfahan, Iran

Corresponding Author:
Farshid Alizadeh, MD
No. 8, Farhad Alley, Daneshgah Ave., Isfahan, Iran
Tel: +9133179509
Fax: +311235 0532
E-mail: f_alizadeh@med.mui.ac.ir

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INTRODUCTION

Isolated epispadias is a rare congenital urologic abnormality with an incidence of around 1 in every 120 000 births.[1] Prepuce is usually absent dorsally and hangs as a tag of redundant tissue on the ventral aspect of the penis. It is extremely rare to see an epispadiac penis with complete prepuce, with less than 10 cases being reported in the literature.[1-7] We add another case and briefly discuss about the diagnosis, embryogenesis, and management of this anomaly.

CASE REPORT

A 2-month-old male infant presenting with concealed penis and asymptomatic urinary infection was referred to us (Figure 1). On physical examination, the glans penis was not felt very well because of the small penile size. Urine culture was positive for *Escherichia coli*. Ultrasonography of the urinary tract was normal, but voiding cystourethrography was postponed until after phimosis release.

After general anesthesia, a dorsal slit was done to release the glans, but unexpectedly, we encountered a penile epispadias, which included nearly the whole penile length, 17 mm (Figure 2).

Urethroplasty and glanuloplasty by urethral plate tubularization and repair of dorsal chordee with medial rotation and suturing of the corpora cavernosa were performed and an 8F urethral catheter was fixed into the bladder for 1 week. The cosmetic result was excellent (Figure 3).

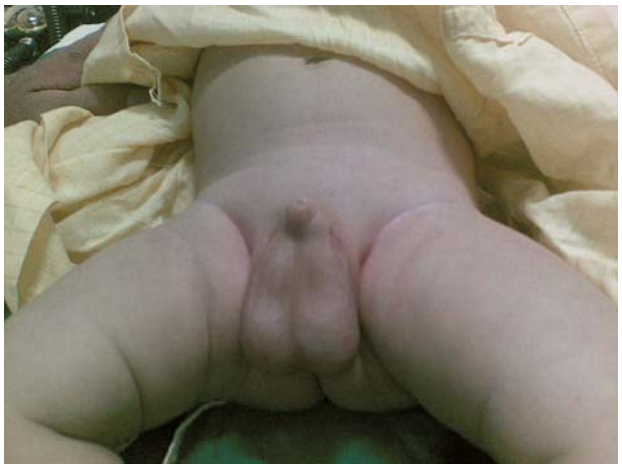

Figure 1. Patient presenting with phimosis.

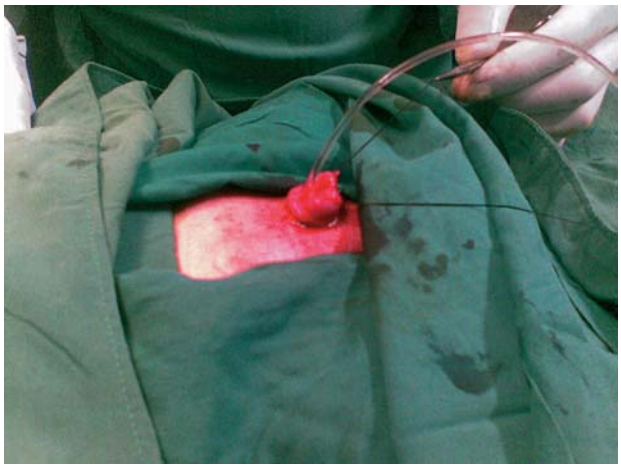

Figure 2. Penile epispadias discovered after dorsal slit.

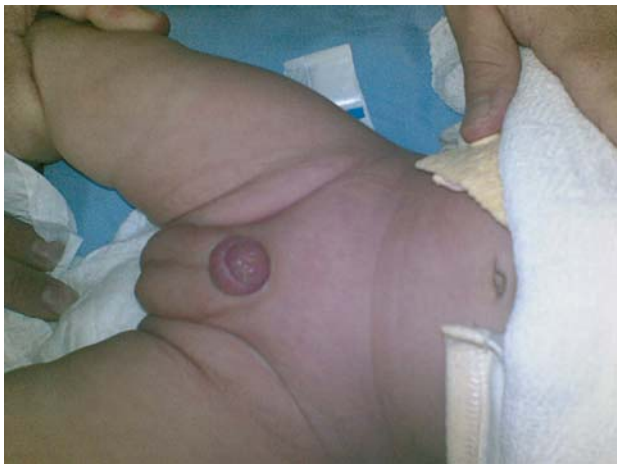

Figure 3. The final result after surgical repair.

DISCUSSION

The first case of epispadias associated with phimosis was reported by Raghavaiah,[6] which was a case of balanic epispadias. He stated that if the defect does not reach the coronal sulcus, the preputial development can take place normally. But later, other authors reported cases of penile epispadias with complete prepuce and phimosis.[1,4]

Considering the rarity of this anomaly, the correct diagnosis could not be made before attempted circumcision. However, some findings on the physical examination can make the examiner suspicious of the presence of this very unusual variant of epispadias. The glans penis is broad-based and has been stated to be tent-like or spade-like.[1,3] When one palpates the glans, the gap between the two corpora cavernosa can be felt, and the preputial opening is diverted dorsally. Dorsal chordee sometimes exists. The raphe penis is totally absent on the glans. It ends near the base of the glans and may assume a horizontal direction,[5] but this kind of abnormality of raphe is not always seen, as it was the case in our patient.

Embryologically, the development of the prepuce begins from the 8th week of gestation from the low preputial folds that appear on both sides of the penile shaft. They first join dorsally and when the development of the glandular urethra is completed, they join ventrally as well. Active growth of the mesenchyme between the preputial fold and the glandular lamella transports the fold distally until it covers the glans totally.[8] If these folds appear proximal to the urethral defect, they can cover the defective urethra as well as the glans.

Some believe that the preputial development in this type of epispadias is not completely normal. Deviation of the preputial opening towards the dorsal aspect of the penis, absence of frenulum line on the glans, and horizontal termination of the raphe phallus close to the glans are the results of this abnormality.[7] McCahill and colleagues proposed that "the developing prepuce beside the dorsal urethral defect is partially diverted over the defect, causing a skewed median raphe".[1]

Careful physical examination is mandatory in any patient that presents with concealed penis or phimosis. Simple circumcision is not indicated in these patients and attempt should be made to close the defective urethra as well as correct the chordee if present.

CONFLICT OF INTEREST

None declared.

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