Journal of Pediatric Urology (2021) 17, 602

# Letter to the Editor

## Dorsal penile curvature with megameatus intact prepuce hypospadias and "septum glandis" deficiency

I read with great interest the article recently published in the Journal of Pediatric Urology titled "Dorsal penile curvature and megameatus intact prepuce hypospadias: A common association in a rare variant of hypospadias" [1]. The authors report on the association (19%) of the dorsal curvature with the megameatus intact prepuce (MIP) variant of hypospadias. The MIP is characterized with a subcoronal wide-mouth meatus with deep glanular groove associated with normal prepuce. Although the patients with distal [2] and mid-shaft [1] hypospadias were included in the study, I congratulate the authors on their important observation, which can be explained by the ligamentous structural forces between the corporal bodies and the glans that increase the stability of the glans.

In MIP, the glans penis is almost normally developed with the exception of the "septum glandis". In fact, the deep groove, which is defined as megameatus, is nothing more than the normal anatomical configuration of the glanular urethra known as the "fossa navicularis". The absence or traumatic loss of the "septum glandis" is a common feature of both MIP and iatrogenic hypospadias, in which the glans is wide-open with intact contours and exposes the fossa navicularis [2]. The "septum glandis" is a fine fibro-elastic tissue in the glans that surrounds and holds the glanular urethra (fossa navicularis) in the midline between its upper and lower components. Its upper component (upper median septum) is the extension of the distal ligament of the corpus cavernosum. The lower component (lower median septum) is the extension of the tunica albuginea of the corpus spongiosum, which connects the glans with the frenulum and the ventral prepuce. The "septum glandis" was described in 1877 by Dr Jacob Henle, which unfortunately was never considered by hypospadiologists and has almost disappeared as an anatomical definition [3].

The distal ligament is known as the equivalent of the baculum and is thicker and stronger on the dorsal midline, compared to the lower median septum. These ligamentous structures are interpersonal dimorphic and vary in density [4,5]. We did not observe any dorsal curvature in our patients with iatrogenic hypospadias. I think that in patients with MIP, the dorsal curvature of the glans may be the result of a lack of the lower median septum and the dominance of the pulling action of the distal ligament during embryonic development of the penis. Hypospadiology should include the exploration of the unique framework of the ligamentous structures and the fine fibrous layers in the glans penis.

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7 June 2021
Available online 6 July 2021

https://doi.org/10.1016/j.jpurol.2021.06.035