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UROLOGY - LETTER TO THE EDITOR

What to choose in proximal hypospadias repair: onlay island flap or tubularized preputial flap?

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Editor,

We have read with interest the remarkable manuscript written by Lyu et al. [1].

In 1987, Elder et al. [2] proposed the use of onlay island flap in the repair of mid and distal penile hypospadias without curvature. However, this is Mollard et al. [3] who applied this concept to the repair of proximal hypospadias with severe curvature on a preserved urethral plate.

Duckett stated in 1994 "In all cases of hypospadias the urethral plate should be preserved initially even in the most severe forms. An onlay island flap will provide better results than the tubularized preputial flap or free graft of the bladder mucosa." [4]. The good results obtained with this surgical technique, immediately after surgery, compared with tubulization of the prepuce are due to the ability to resect poorly vascularized edges because there is often an excess of prepuce, without the risk of proximal stricture, and the presence of the solid floor made by vestigial dysgenetic tissue from aplasia of the corpus spongiosum [5]. However, the long-term results of this technique in the repair of proximal hypospadias with severe curvature can be disappointing.

For more than 20 years, we used the onlay urethroplasty on a large number of patients treated for proximal hypospadias associated with curvature of the penis. When the correction of the curvature by the release of the skin and dartos fascia was insufficient, this procedure was associated with dorsal plication by excision of a diamond shape at the point of the maximum bend dorsally, after complete separation of the dorsal neurovascular bundle from the corpus cavernosum. A procedure of dorsal plication which seems more physiologic than others allowed us to preserve the urethral plaque, even with significant curvatures. The onlay island flap gave a very low rate of fistulas, without proximal and distal stenoses. However, a significant number of adults and adolescents who underwent onlay urethroplasty with or without dorsal plication at their young age report the presence of curvature during erection. I think that the reappearance of the curvature after a few years is due to poor growth of the urethral plate preserved. Thus, the correction of the curvature should be a priority and we do not hesitate to transect the urethral plate if the release of the curvature requires it.

I have some remarks:

- The authors declare that in both procedures: "the penile skin was removed from the coronal sulcus to the root of the penis". In the onlay island flap, the surgical technique begins always by two parallel incisions in the skin and the glans (U-shaped incision). This incision isolated a urethral plate sufficiently wide (8–10 mm) [6] because the urethral plaque considerably narrows after its release.
- I think that to accurately measure the correction of the penile curvature, it must use profile pictures taken during successive saline erection, which was used for the first time in 1996 [7].
- In the onlay urethroplasty, the duration of the urinary diversion by feeding tube which was at the beginning of our experience of 7 days has been reduced to 2 days, and it is not justified to keep this catheter for 10–14 days.
- In the Duckett's procedure, the section of the urethral plate must be done at the coronalsulcus, not at the point of the maximum curvature.

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Compliance with ethical standards

Conflict of interest S. Acimi declares that he has no conflict of interest and MA Acimi declares that he has no conflict of interest.

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