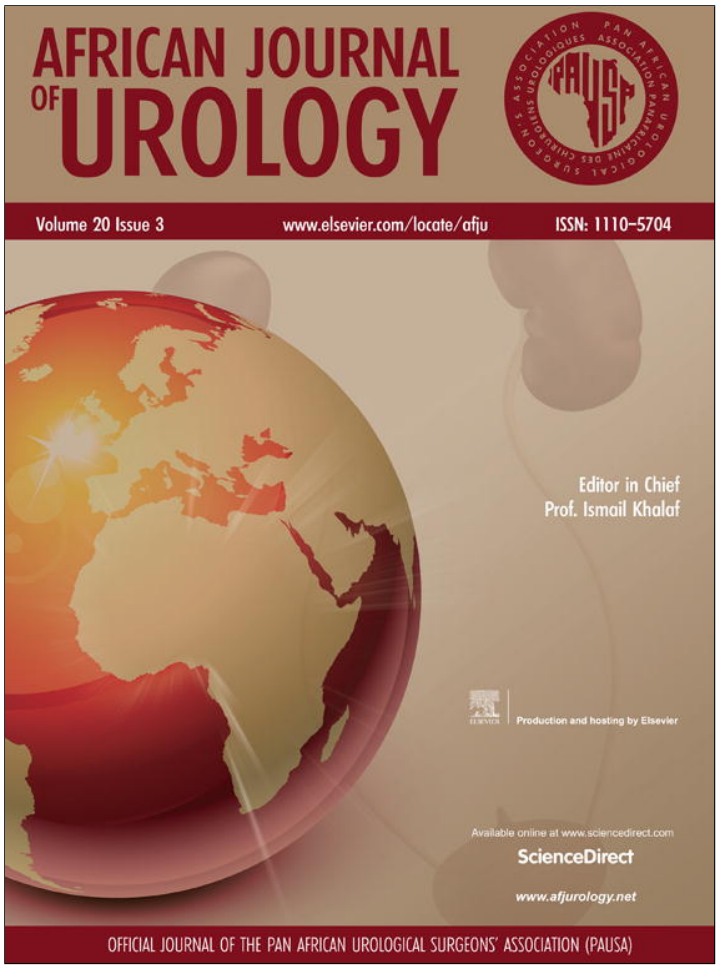

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Editorial

The issue of ventral versus dorsal approach in bulbar urethral reconstruction

The goal of the modern surgeon in bulbar urethral reconstruction is to reduce morbidity aiming at a sexuality-preserving urethroplasty. Traditional Transecting and Anastomotic Techniques showed a high sexual complication rate, therefore, the best solution for non-obliterative bulbar strictures seems to be buccal mucosa Graft Urethroplasty without transection and preserving the urethral plate [1–3].

Dorsal or ventral Grafting by dorsal or ventral approaches remains a debated issue without winners. Considering studies with only buccal mucosa grafts and sufficiently long follow-ups, we can observe that the success rate of Ventral Grafting ranges between 83 and 95%, success rate of Dorsal-Barbagli Grafting ranges between 77 and 95%, success rate of Dorsal-Asopa Graft ranges between 88 and 92%. Overall success rate of graft techniques is about 90% [4].

Considering series comparing directly ventral vs dorsal Graft, Andrich and Mundy showed better results of Dorsal Graft [5], whilst Barbagli showed similar results [6]. However, later, the same Barbagli showed better results for the Ventral graft and therefore he increased over time the use of Ventral Graft and decreased the use of dorsal graft [7].

From surgical point of view, the Barbagli Dorsal Grafting by Dorsal approach [8] gives a good support for the graft; Barbagli stated that his technique offers a wider augmentation than ventral or dorsal grafting using the ventral approach. The good spongiosum covering seems reduce the risk of fistula; in reality there is a similar rate of fistula with both ventral and dorsal grafting. The disadvantage of the dorsal approach is that it is technically more difficult than ventral approach and there is not a very good view of the urethral plate. Furthermore there is a risk of sexual complications because, as Barbagli himself stated, dorsal approach might impair nervi erigentes and bulbar arteries when dissection from the corpora is very proximal [6]. Thus, ventral approach seems less aggressive, above all in the proximal bulbar strictures which, in our experience, represent the great majority of bulbar strictures.

The ventral approach is easy because the urethral lumen is easily found [9]. The good view of the urethral plate allows its preservation as much as possible. The clear view of mucosal edges allows a watertight graft-anastomosis.

Ventral approach is more versatile because allows to choose a single ventral or dorsal grafting (Asopa Technique) [10], or a dorsal plus ventral double grafting (Palminteri Technique) which avoids the transection in tight strictures [11,12]. Furthermore, if necessary, the ventral access allows the transection and dorsal re-anastomosis combined with a ventral grafting. Finally, it allows to convert intraoperatively a one-stage into a perineostomy.

However, Ventral grafting has some disadvantages: it cannot be performed in distal bulbar strictures involving penile segments because there is no sufficient spongiosum to cover the graft; there is less mechanical support for the Graft with a subsequent higher risk of pseudodiverticulum, causing postvoid dribbling and ejaculatory dysfunctions. Dubey et al. [13] showed that ventral onlay repairs were associated with a higher incidence of these complications than dorsal repairs.

From this point of view, we studied the impact of ventral graft on sexual life, and we showed that 20% of patients reported a worsened ejaculation because of post-ejaculation dribbling or reduced ejaculatory stream [14]; actually we do not know if these disorders are due to the weakening of the ventral graft or to the surgical trauma of the perineal nerves and bulbospongiosus muscle, which are involved in semen expulsion. However, nobody reported a worsened erection, whilst most of the patients noticed a significant improvement in terms of erection, ejaculation, relationship with partner, sexual activity and desire. All patients reported an improvement in Quality of Sexual Life and Quality of Life [14].

In conclusion, ventral approach in graft bulbar urethroplasty seems to be easier, versatile and with fewer complications.

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