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INVITED COMMENTARY

Operational Andrology

Commentary on: "Novel strategy using a spiral embedded flap for meatal stenosis after post-penile cancer amputation surgery: a single-center experience"**Matthew KH Hong^{1,2}, Georgina M Williams²***Asian Journal of Andrology*(2022) **24**, 678; doi: 10.4103/aja202228; published online: 07 June 2022

Urethral stricture disease and stenotic complications of their repair remain challenging problems for urological surgeons. In recent years, there has been a drive to offer definitive reconstructive urethroplasty to men with recurrent urethral stricture disease to improve quality of life and avoid repeated dilatation and catheterization, the latter of which is also associated with recurrent urinary tract infections. However, stenotic complications are not limited to men undergoing surgery for urethral stricture disease (with or without lichen sclerosis) but also occur in those undergoing partial or total amputation of the penis with perineal urethrostomy for penile carcinoma. With advancements in oncological treatment and outcomes, improvements in survival are accompanied by issues of cancer survivorship. Stenosis of a perineal urethrostomy is a relatively rare yet challenging problem for which no established management guidelines exist.

In this issue of *Asian Journal of Andrology*, Wang *et al.*¹ present a case series of penile cancer survivors who have undergone surgery for short strictures of the external urethral orifice after partial penile resection ($n = 4$) or perineal urethrostomy ($n = 3$). Preoperatively, these patients were established on repeated urethral dilatation at an average 2.7-week interval with a mean maximum urinary flow rate of approximately 7 ml s⁻¹ and with a short stricture length of approximately 5 mm. The authors report their technique with the use of local rotation skin flaps in a spiral pattern following excision of the scarred stenotic section. With a mean operative time of 43 min and follow-up as long as 33 months, the technique is positively reported in terms of feasibility, reproducibility, efficacy, and stricture-free rate. All patients have been catheter and intervention free with a maximum urinary flow rate >15 ml s⁻¹ in all cases. Importantly, the technique requires only basic surgical instruments and supplies and avoids the use of grafting and hence any donor site morbidity.

The procedure works by local transfer of vascularized tissue with rotation, and its use is limited to short strictures <1 cm. The resulting eversion of the urethral mucosa also increases the durability of the procedure. Limitations of the case series include the lack of quality of life indicators or patient reported outcome measures which have

become commonplace in similar studies. The small case numbers, with just seven patients over a 6-year period, attest to the difficulty with clinical trials in this area, and higher level evidence would likely require multi-institutional cooperation for the recruitment required for adequately powered studies.

Indeed, other reports of surgical correction for stenosis of perineal urethrostomy have been similarly limited to small case series and conventionally report the use of grafts. Kamat described four cases of perineal urethrostomy stenosis managed with buccal mucosa grafts.² Three triangular grafts with a 1-cm base and 2-cm length were harvested and placed over incisions at the 4 o'clock, 7 o'clock, and 12 o'clock positions. Lumen *et al.*³ reported a case managed with a split thickness skin graft harvested from the thigh. A central fenestration through the graft was anastomosed to the spatulated urethral stump, while the outer edges were fashioned and sutured to the perineal skin edges. The use of graft may still be necessary for longer strictures but would ideally require conditions for graft take including freedom of the graft bed from previous radiation, extensive scarring and infection.

Although a small series, the report by Wang *et al.*¹ emphasizes the importance of reporting simple, effective, and graft-free surgical techniques in the literature. These add to the necessarily wide armamentarium of reconstructive urological surgeons who may on occasion encounter the issue of stenosis in a postoperative penile cancer survivor.

COMPETING INTERESTS

Both authors declare no competing interests.

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