



# The penis transposed to the perineum with penile-prostatic anastomotic urethroplasty for the treatment of a long segment complex urethral strictures

Yue-Min Xu<sup>1,2#</sup>, Min-Kai Xie<sup>3#</sup>, Chao Li<sup>4</sup>, Hong Xie<sup>1,2</sup>, Lu-Jie Song<sup>1,2</sup>, Hong-Bin Li<sup>1,2</sup>, Ying Liu<sup>4</sup>

<sup>1</sup>Department of Urology, Shanghai Jiao Tong University Affiliated Sixth People's Hospital, Shanghai, China; <sup>2</sup>Shanghai Eastern Urological Reconstruction and Repair Institute, Shanghai, China; <sup>3</sup>Department of Urology, Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China; <sup>4</sup>Department of Urology, Tongji Hospital, Tongji University School of Medicine, Shanghai, China

**Contributions:** (I) Conception and design: YM Xu, C Li; (II) Administrative support: YM Xu, C Li; (III) Provision of study materials or patients: All authors; (IV) Collection and assembly of data: MK Xie, C Li; (V) Data analysis and interpretation: MK Xie, C Li, YM Xu; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

<sup>#</sup>These authors contributed equally to this work.

**Correspondence to:** Yue-Min Xu, MD, PhD. Department of Urology, Shanghai Jiao Tong University Affiliated Sixth People's Hospital, Shanghai 200233, China; Shanghai Eastern Urological Reconstruction and Repair Institute, Shanghai 200233, China. Email: xuyueminxu@163.com; Chao Li, MD, PhD. Department of Urology, Tongji Hospital, Tongji University School of Medicine, Shanghai 200065, China. Email: chaoli1979@126.com.

**Background:** To present our experience of transposing the penis to the perineum, with penile-prostatic anastomotic urethroplasty, for the treatment of complex bulbo-membranous urethral strictures.

**Methods:** Between January 2002 and December 2018, 20 patients with long segment urethral strictures (mean 8.6 cm, range 7.5 to 11 cm) and scarred perineoscrotal skin underwent a procedure of transposition of the penis to the perineum and the penile urethra was anastomosed to the prostatic urethra. Before admission 20 patients had unsuccessful repairs (mean 4.5, range 2 to 12); five patients were associated urethrorectal fistula; 16 patients reported severe penile erectile dysfunction (PED) or no penile erectile at any time and four reported partial erections.

**Results:** The mean follow-up period was 45.9 (range 12 to 131) months. Nineteen patients could void normally with a mean Qmax of 22.48 (range 15.6 to 31.4) mL/s. One patient developed postoperative urethral stenosis. After 1 to 10 years of the procedure, nine patients underwent the second procedure. Of the nine patients, four underwent straightening the penis and one-stage anterior urethral reconstruction using a penile circular fasciocutaneous skin flap, and five underwent straightening the penis and staged Johanson urethroplasty. Seven patients could void normally, one developed urethrocutaneous fistula and one developed urethral stenosis.

**Conclusions:** Transposition of the penis to the perineum with pendulous-prostatic anastomotic urethroplasty may be considered as a salvage option for patients with complex long segment posterior urethral strictures.

**Keywords:** Urethral stricture; urethroplasty; reconstruction; trauma

Submitted Jun 22, 2020. Accepted for publication Dec 28, 2020.

doi: 10.21037/tau-20-1024

**View this article at:** <http://dx.doi.org/10.21037/tau-20-1024>

## Introduction

Patients with extensive posttraumatic bulbo-membranous urethral defects or strictures are uncommon. Patients who have undergone prior failed surgeries or who have developed secondary urethral infection pose the most challenging problem in modern urology. Grafts and flaps are frequently used for the treatment of a long complex urethral strictures (1-10). However, their application may be impossible because of the poor quality of the urethral bed or scarred perineoscrotal skin caused by repeated failed surgery; this further increases the failure rate. Enterourethroplasty, using the appendix, a jejunal free flap, the ileum, the stomach, or a sigmoid colon flap, has been reported for the treatment of complex and lengthy bulbo-membranous urethral defects or strictures (11-14). However, these techniques are not universally applicable because they require experience and expertise with microvascular anastomosis.

In 2007, we reported the initial outcomes of staged pendulous-prostatic anastomotic urethroplasty on two patients with posttraumatic complex bulbo-membranous urethral lengthy defects with good outcomes (15). The present report describes our surgical experience on 20 patients with posttraumatic extensive bulbo-membranous urethral defects or strictures who underwent 2 to 12 unsuccessful repairs. We present the following article in accordance with the STROBE reporting checklist (available at <http://dx.doi.org/10.21037/tau-20-1024>).

## Methods

Between January 2002 and December 2018, 20 patients (mean age 40.2, range 12 to 61 years) with complex long-segment defects or strictures of the bulbo-membranous urethra and scarred perineoscrotal skin underwent a procedure of transposition of the penis to the perineum with penile-prostatic anastomotic urethroplasty. The etiology of urethral stricture or defect was trauma in all patients. The causes of injury included traffic accidents in thirteen, injury by falling in four, crush injuries in two, and an electrical shock injury in one patient (*Table 1*). All patients were initially treated elsewhere. The mean time between original injury and admission to our hospital was 7.8 (range 2 to 31) years. Prior to admission, suprapubic cystostomy had been performed in all patients. Patients had undergone between 2 and 12 (mean 4.5) unsuccessful repairs, including anastomotic urethroplasty, flap substitution urethroplasty, and urethrotomy. The mean length of the urethral stricture

or defect was 8.6 (mean 7.5–11) cm (*Figure 1*). Five (25%) patients were associated urethrorectal fistula. A colostomy was used in patients with concomitant recto-urethral fistula. Sixteen (80%) patients reported severe penile erectile dysfunction (PED) or no penile erectile at any time before admission and the remaining 4 (20%) reported partial erections. All patients were scheduled to be examined in the outpatient clinic 1, 3, 6, 12 months postoperatively. One year after the operation, we call the patients each year to ask if they have dysuria. All patients were followed up. If patient feel dysuria, urethrography and urethroscopy were performed to rule out a stricture. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). When this technology was applied 18 years ago, our country didn't have a complete Institutional Review Board (IRB) system. Therefore, the ethical approval is not required. Informed consent was obtained from the patients.

## Surgical procedures

### Urethroplasty

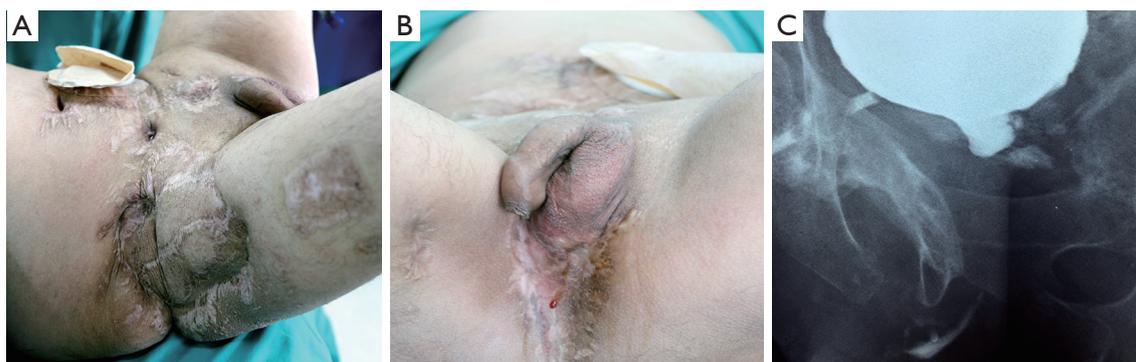
Twenty patients underwent transposition of the penis to the perineum with penile-prostatic anastomotic urethroplasty. The patients were placed in the standard lithotomy position after induction of general anesthesia. An inverted Y-shaped perineal incision was made, extending anteriorly to the scrotum and penis. The obliterated urethra and periurethral fibrotic tissues were completely excised until a healthy prostatic urethra was identified (*Figure 2A*). A circular skin incision around the base of the penis was made, maintaining the blood supply of the spongy body of the penis. The penis was transposed to the perineum through a scrotal septum incision or tunnel (*Figure 2B*) and the length of the normal penile urethra (LNPU) was approximately 6–9 cm (*Figure 2C*). The penile urethra was anastomosed to the prostatic urethra under tension-free conditions using of 3-4/0 polyglycolic acid sutures. The penis was displaced under the scrotum postoperatively (*Figure 3A*).

Nine patients have received a secondary penile straightening procedure. This operation was performed at least 6 months later when the anterior urethra was revascularized from periurethral tissue. The second procedure involved straightening the penis and one-stage anterior urethral reconstruction using a penile circular fasciocutaneous skin flap. The curved spongy body of the penis was separated, the urethra was transected at the site of the coronary sulcus, and the spongy body was straightened. A new anterior urethra was reconstructed using a penile circular fasciocutaneous skin flap.

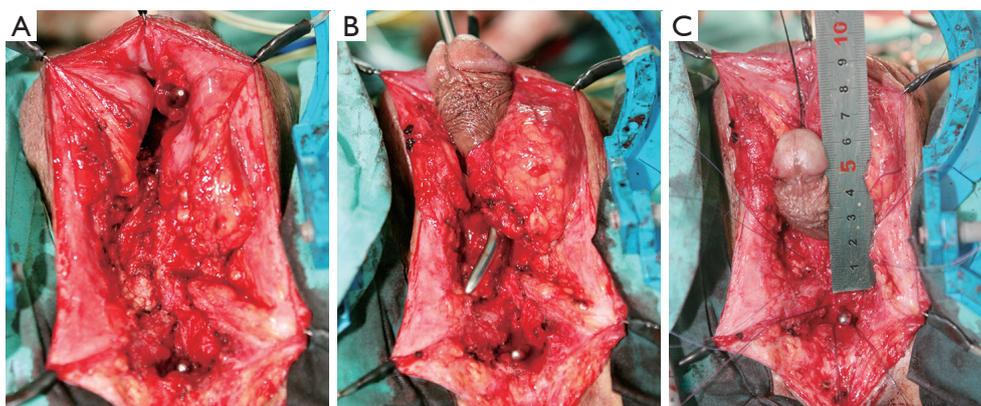
**Table 1** Patients' preop characteristics

Pt. no	Age	Etiology	Urethral stricture		Urethrorectalfisture	FPT	PED	LNPU (cm)
			History (yr)	Length (cm)				
1	23	Traffic accident	11	7.5	Yes	12	Yes	6
2	20	Traffic accident	2	10	No	4	Yes	6
3	38	Traffic accident	5	8	Yes	3	Yes	8
4	24	Crush injuries	11	10	No	5	Yes	7
5	35	Injury by falling	2	9	No	2	No	8
6	40	Traffic accident	14	7.5	No	4	No	8.5
7	51	Traffic accident	31	8.5	Yes	8	Yes	8
8	32	Traffic accident	2	7	No	2	No	9
9	12	Traffic accident	6	7	No	4	Partial	6
10	38	Crush injuries	4	8	Yes	6	Yes	5
11	60	Injury by falling	20	8	No	5	Yes	7
12	61	Injury by falling	11	10	No	4	Yes	7
13	61	Injury by falling	2	7.5	Yes	3	Yes	9
14	47	Traffic accident	4	10	No	4	Yes	6.5
15	45	Electrical shock injury	2	10	No	3	Yes	7.5
16	56	Traffic accident	2	9	No	4	Yes	8
17	16	Traffic accident	3	8	No	4	Yes	6.5
18	56	Crush injuries	3	9	No	3	Yes	7
19	37	Traffic accident	15	9	No	7	Yes	7
20	51	Traffic accident	6	9	No	3	Yes	8
Mean	40.2	–	7.8	8.6	–	4.5	–	7.3

FPT, failed previous treatments; PED, penile erectile dysfunction; LNPU, length of the normal penile urethra.



**Figure 1** Patient preoperative characteristics. (A) Patient with extensive trauma; (B) perineal scar; (C) cystogram and retrograde urethrography showing complex long-segment urethral stricture.



**Figure 2** The first procedure. (A) Excising the obliterated urethra and periurethral fibrotic tissues; (B) transposing the penis to the perineum through the scrotal tunnel; (C) about 6 to 9 cm of the normal penile urethra.

Five patients received the third-stage surgery. This operation was reconstruction of a new anterior urethra using second-stage Johanson urethroplasty. It was performed 6 months after the second surgery. A longitudinal incision of two sides of the ventral epithelized skin was made, which circled the proximal and distal meatus of the urethra, and extended deep to the albuginea penis. A 1.2–1.5 cm wide strip of ventral epithelized skin at the urethral ditch was used to form the dorsal wall of the new urethra. The lateral skin was undermined and closed over the buried strip to form a tube for the new urethra. The ventral side of the new urethra was left to become epithelialized. This three-step technique was described before (15).

#### *Treatment of urethrorectal fistulas*

Five patients had urethral strictures associated with a urethrorectal fistula, repaired simultaneously during the first procedure. The fistula was dissected circumferentially and excised completely; the margins of the fistulous opening in the rectum were freshened. The rectum was repaired in two layers using 3-0 polyglactin running suture. Well-vascularized tissue was inserted between the repaired rectum and the urethra (16).

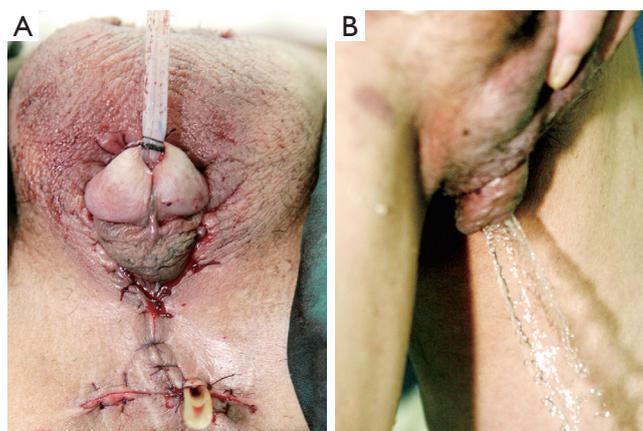
#### *Statistical analysis*

Study size was based on the number of patients with complete data for analysis identified through retrospective review. Descriptive statistics were used to describe demographic variables, assessments of urinary function, and post-operative complications. Missing data was excluded from analysis.

## **Results**

The mean follow-up period was 45.9 (range 12 to 131) months. There were no serious complications include severe infection and necrosis of the penile urethra in any patients during the immediate postoperative period. The penis was under the scrotum after the first procedure (*Figure 3*). According Male Urethral Stricture: AUA Guideline [2016], the successful treatment is common defined as no further need for surgical intervention or instrumentation. The patients don't experience obstructive voiding symptoms and peak uroflow >15 m/s (17). The procedure was successful in 19 patients (95%). The 19 patients voided well and mean urinary peak flow was 22.69 (range 15.7 to 31.4) mL/s. Urethral stricture developed in one patient (No. 9) and he had dysuria 6 months postoperatively, requiring interval dilatation once every 3 to 6 months. Interval dilatation was stopped 6 years later. Urinary peak flow was stabilized from 14 to 16 mL/s in the following 4 years. Eighteen patients had continence and one patient had stress incontinence postoperatively.

After 1 to 10 years of the procedure of transposition of the penis to the perineum with penile-prostatic anastomotic urethroplasty, nine patients underwent the second procedure of straightening the penis and repeat anterior urethral reconstruction. Of the nine patients, four underwent straightening the penis and one-stage anterior urethral reconstruction using a penile circular fasciocutaneous skin flap, five patients underwent straightening the penis and staged Johanson urethroplasty. Complications including an urethrocutaneous fistula and urethral stricture were developed in two patients, the other patients could void



**Figure 3** The results of the first procedure. (A) Displacing the penis under the scrotum postoperatively; (B) the patient voiding with a good stream 1 year postoperatively.

normally. In the remaining 11 patients, 10 had satisfactory results for voiding and were not willing to undergo any urethral reconstruction, and the last patient is a 16-year-old patient (No. 17) who voided well after the procedure, and was undecided whether to undergo the second procedure of straightening the penis and repeat anterior urethral reconstruction at present (*Table 2*).

## Discussion

The treatment of posttraumatic complex posterior urethral strictures in patients who have failed surgical intervention, and result in scrotal or bulbourethra to membranous urethral defects or strictures, is a very difficult surgical problem and is even more challenging than no scrotal or bulbourethra to membranous urethral defects or strictures to resolve. Numerous urethral reconstructive techniques have been described in the literature (8-15). There is, however, no universally accepted technique for either primary urethral reconstruction or salvage repair.

Enterourethroplasty has been reported for the treatment of complex posterior urethral lengthy defects or strictures (10-14). Bales *et al.* described a technique of urethral reconstruction using a tailored jejunal free tissue transfer to reconstruct the urethra in two patients with complex urethral strictures (11). Postoperatively, these patients had good urinary streams and were able to void in the standing position. However, the technique is time-consuming and surgeons must have experience with microvascular anastomosis. Sacculation of the neourethra may occur, which could result in post-void dribbling, infection,

and stone formation. Lee *et al.* described the use of a reconfigured flap of the sigmoid colon, much the same as described here but only 3 cm long, in one patient with a complicated pelvic fracture-related urethral injury who had a simultaneous sigmoid colocolostomy and who did well after 15 months of follow up (12). Mundy *et al.* reported 11 patients with bulbomembranous urethral strictures or defects after trauma who were treated by interposition of a tailored intestinal flap (13).

A penile circular fasciocutaneous skin flap has been frequently used for the treatment of anterior urethral strictures (6); however, if the blood supply of the flap is of poor quality, ischemic necrosis of the flap after urethroplasty and complications may occur. Perineo-scrotal skin is also frequently used for the treatment of long urethral strictures (9). Unfortunately, in these patients who underwent failed previous surgical treatments, there was not enough healthy perineoscrotal skin to be suitable for urethroplasty. In our group, four patients underwent second procedure of straightening the penis and one-stage anterior urethral reconstruction using a penile circular fasciocutaneous skin flap. Complications including an urethrocutaneous fistula and urethral stricture developed in two patients, in which there was a relationship with the poor blood supply.

In traumatic posterior urethral defects or strictures, the transperineal approach, excising the stricture and performing anastomotic urethroplasty is the gold standard treatment, and generally has a high success rate with the fewest complications (16-21). Surgical treatment of this disorder with perineal anastomotic urethroplasty was accompanied by a success rate of 82% to 95% in different

Table 2 Different procedures and results

Pt. no	Age <sup>#</sup>	Procedure 1		Procedure 2		Procedure 3		Complication	FU
		UMF (mL/s)		AP1 (yr)	UMF (mL/s)	AP1 (yr)	UMF (mL/s)		
1	24	23				1	18		131
2	21	24.5				1	21.2		118
3	39	21.3				1		Stricture (AP3)	89
4	27	21.7				3	17		61
5	36	25.6				1.5	19		52
6	42	25.2		2	21				49
7	54	19.6		3				Urethrocutaneous (AP3)	31
8	34	31.4		2	28.6				24
9	22	–		10				Stricture (AP1)	17
10	38	31							61
11	59	18.8							52
12	61	15.6							45
13	61	16.2							42
14	47	26.2							31
15	45	22.4							29
16	56	17.7							25
17	16	16.6							18
18	59	17.2							16
19	36	30.6							13
20	51	24							10

<sup>#</sup>, Age at final operation. Procedure 1: the penis transposed to the perineum, penile-prostatic anastomotic urethroplasty; Procedure 2: straightening the penis and one-stage penile circular fasciocutaneous skin flap anterior urethroplasty; Procedure 3: second-stage Johanson urethroplasty; AP1: after procedure 1; AP3: after procedure 3. UMF, uroflowmetry maximum flow; FU, follow up.

studies. The key to achieving long-term successful outcome with this technique is dependent on two techniques: one is complete excision of the periurethral scar tissue. Flynn *et al.* reported a recurrence rate of 5% in 109 adults who underwent bulbo-prostatic anastomotic repair of a pelvic fracture with urethral distraction (21). The major cause of recurrent strictures was scar tissue around the urethra not having been excised completely during surgery, which resulted in postoperative scar contracture. We usually palpated the proximal end of the urethra and periurethral tissues after excising the urethral stricture, and excised the periurethral scar tissues until the surrounding tissues were soft (16,19,20). The other key technique was the tension-free end-to-end anastomosis. The routine anastomotic

urethroplasty technique using a simple perineal approach was sometimes difficult for these patients with complex long-segment posterior urethral strictures (longer than 3 cm), because a tension-free end-to-end anastomosis was not sufficient to achieve long-term successful outcome. We usually adopted these techniques, including complete mobilization of the bulbar urethra, separation of the cavernous bodies, and inferior pubectomy to accomplish a tension-free bulbo-prostatic urethral anastomosis (16,19,20). However, it was very difficult to treat those patients with post-traumatic complex long-segment (longer than 6 cm) posterior urethral strictures who have undergone failed previous surgical treatments with these techniques. Routine techniques such as suprapubic cystostomy and urinary diversion can drain

urine, but daily care post operation is troublesome, with risks of infection. Above all, patients prefer to be able to urinate autonomously. If the penis is transposed to the perineum, a tension-free penile-prostatic anastomotic urethroplasty is easily performed. In our group, 20 patients underwent the procedure of penis transposition to the perineum with penile-prostatic anastomotic urethroplasty, urethral stricture developed only in one patient postoperatively (No. 9). The dilatation was stopped 6 years later and urinary peak flow was stabilized from 14 to 16 mL/s during the following 4 years. The patient underwent again the second procedure of straightening the penis and one-stage anterior urethral reconstruction using a penile circular fasciocutaneous skin flap 10 years after the first procedure. However, a proximal anastomotic stenosis developed postoperatively and was managed by urethrotomy and interval dilatation.

Data on preoperative erectile function were available in all 20 patients. A total of 16 (80%) patients reported severe PED, 4 (20%) reported partial erections before admission. Preoperatively, patients were informed that the penis would be displaced under the scrotum post-operatively and that they would not be able to have normal sexual intercourse temporarily or permanently. If the patients voided well after the procedure and would consider undergoing the next second procedure of straightening the penis and repeat anterior urethral reconstruction, they were informed that complications such as urethral strictures and urethrocutaneous fistulas could occur. This technique should be applied that this can be added for severe, salvage, cases but not be regarded as a primary technique by any means and requires.

## Conclusions

The treatment of the patient with posttraumatic complex posterior urethral strictures who have undergone failed previous surgical treatments was a very difficult surgical problem. Transposing the penis to the perineum with penile-prostatic anastomotic urethroplasty was an effective surgical salvage option for patients with posttraumatic complex posterior urethral strictures who have undergone failed previous surgical treatments and who have strictures or defects of the bulbo-membranous urethra, especially older men with PED. This technique still requires more patients and more centers to verify reliability.

## Acknowledgments

*Funding:* None.

## Footnote

*Reporting Checklist:* The authors have completed the STROBE reporting checklist. Available at <http://dx.doi.org/10.21037/tau-20-1024>

*Peer Review File:* Available at <http://dx.doi.org/10.21037/tau-20-1024>

*Conflicts of Interest:* All authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/tau-20-1024>). The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). When this technology was applied 18 years ago, our country didn't have a complete Institutional Review Board (IRB) system. Therefore, the ethical approval is not required. Informed consent was obtained from the patients.

*Open Access Statement:* This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

## References

1. Xu YM, Li C, Xie H, et al. Intermediate-term outcomes and complications of long segment urethroplasty with lingual mucosa grafts. *J Urol* 2017;198:401-6.
2. Xu YM, Qiao Y, Sa YL, et al. Substitution urethroplasty of complex and long-segment urethral strictures: a rationale for procedure selection. *Eur Urol* 2007;51:1093-8; discussion 1098-9.
3. Xu YM, Feng C, Sa YL, et al. Outcome of 1-stage urethroplasty using oral mucosal grafts for the treatment of urethral strictures associated with genital lichen sclerosus. *Urology* 2014;83:232-6.

4. Xu YM, Sa YL, Fu Q, et al. Oral mucosal grafts urethroplasty for the treatment of long segmented anterior urethral strictures. *World J Urol* 2009;27:565-71.
5. Palmer DA, Marcello PW, Zinman LN, et al. Urethral reconstruction with rectal mucosa graft onlay: a novel, minimally invasive technique. *J Urol* 2016;196:782-6.
6. McAninch JW, Morey AF. Penile circular fasciocutaneous skin flap in 1-stage reconstruction of complex anterior urethral strictures. *J Urol* 1998;159:1209-13.
7. Burks FN, Santucci RA. Complicated urethroplasty: a guide for surgeons. *Nat Rev Urol* 2010;7:521-8.
8. Khazanchi RK, Dorairajan LN, Dogra PN, et al. Free-flap urethroplasty for a complex, long-segment stricture of the bulbomembranous urethra. *J Reconstr Microsurg* 1998;14:223-5.
9. Rogers HS, McNicholas TA, Blandy JP. Long-term results of one-stage scrotal patch urethroplasty. *Br J Urol* 1992;69:621-8.
10. Jack GS, Zhang R, Lee M, et al. Urinary bladder smooth muscle engineered from adipose stem cells and a three dimensional synthetic composite. *Biomaterials* 2009;30:3259-70.
11. Bales GT, Kuznetsov DD, Kim HL, et al. Urethral substitution using an intestinal free flap: a novel approach. *J Urol* 2002;168:182-4.
12. Lee YT, Cho TW, Jeong HS, et al. Reconfigured sigmoid colon neourethra: substitution of refractory posterior urethral stricture. *Urology* 2005;65:157-9.
13. Mundy AR, Andrich DE. Entero-urethroplasty for the salvage of bulbo-membranous stricture disease or trauma. *BJU Int* 2010;105:1716-20.
14. Koshima I, Inagawa K, Okuyama N, et al. Free vascularized appendix transfer for reconstruction of penile urethras with severe fibrosis. *Plast Reconstr Surg* 1999;103:964-9.
15. Wu DL, Jin SB, Zhang J, et al. Staged pendulous-prostatic anastomotic urethroplasty followed by reconstruction of the anterior urethra: an effective treatment for long-segment bulbar and membranous urethral stricture. *Eur Urol* 2007;51:504-10; discussion 510-1.
16. Xu YM, Sa YL, Fu Q, et al. Surgical treatment of 31 complex traumatic posterior urethral strictures associated with urethrorectal fistulas. *Eur Urol* 2010;57:514-20.
17. Wessells H, Angermeier KW, Elliott S, et al. Male Urethral Stricture: American Urological Association Guideline. *J Urol* 2017;197:182-90.
18. Mundy AR. Urethroplasty for posterior urethral strictures. *Br J Urol* 1996;78:243-7.
19. Zhang J, Xu YM, Qiao Y, et al. An evaluation of surgical approaches for posterior urethral distraction defects in boys. *J Urol* 2006;176:292-5; discussion 295.
20. Fu Q, Zhang J, Sa YL, et al. Recurrence and complications after transperineal bulboprostatic anastomosis for posterior urethral strictures resulting from pelvic fracture: a retrospective study from a urethral referral centre. *BJU Int* 2013;112:E358-63.
21. Flynn BJ, Delvecchio FC, Webster GD. Perineal repair of pelvic fracture urethral distraction defects: experience in 120 patients during the last 10 years. *J Urol* 2003;170:1877-80.

**Cite this article as:** Xu YM, Xie MK, Li C, Xie H, Song LJ, Li HB, Liu Y. The penis transposed to the perineum with penile-prostatic anastomotic urethroplasty for the treatment of a long segment complex urethral strictures. *Transl Androl Urol* 2021;10(3):1040-1047. doi: 10.21037/tau-20-1024