Comparative outcomes and patient satisfaction rates of three tunical shortening techniques used for the correction of penile curvatures

A retrospective, single-center study

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ABSTRACT

INTRODUCTION: The aim of this study was to compare clinical outcomes and patient satisfaction rates after application of three different tunical shortening techniques — Yachia corporoplasty, Nesbit corporoplasty, and 16-dot plication — in patients undergoing surgery for congenital and acquired penile curvatures.

METHODS: We retrospectively evaluated the postoperative outcomes of 68 patients who underwent penile curvature repair using one of three different surgical techniques between 2010 and 2023 and had been followed up for at least one year. Complications (if any) (e.g., penile shortening, loss of penile sensation, recurrence, presence of nodules, painful erection) and surgical satisfaction levels were assessed through medical records and telephone interviews.

RESULTS: The mean age of the patients included in the study was 37.34±16.81 years. Yachia corporoplasty was performed in 27 (39.70%), Nesbit corporoplasty in 15 (22.06%), and 16-dot penile plication in 26 (38.24%) patients. There was no difference between the techniques in terms of surgical complications, such as shortening of penile length (p=0.096), loss of penile sensation (p=0.892), recurrence (p=0.302), and presence of nodules at the operation site (p=0.239), while painful erection was most common in the Nesbit corporoplasty group (n=5, 33.33%) (p=0.020). Postoperative dissatisfaction rate was highest in the 16-dot penile plication group (n=6, 23.07%) (p=0.557). There was a negative correlation between satisfaction level and recurrence in the 16-dot penile plication and corporoplasty groups (r=-0.516, p=0.006; r=-0.659, p<0.001, respectively). In addition, a negative correlation was observed between satisfaction levels, shortening of penile length, and presence of nodules in the corporoplasty group (r=-0.482, p=0.001; r=-0.320, p=0.044, respectively).

CONCLUSIONS: In patients who underwent penile curvature surgery using penile shortening techniques, low complication and high satisfaction rates were observed in all three corporoplasty techniques. Recurrence, presence of palpable nodule(s), and shortening of penile length are important parameters affecting the level of satisfaction.

INTRODUCTION

Penile curvature is a curvature of the penis in the ventral lateral or dorsal direction and can occur due to congenital or acquired etiologies.[1] The cause of congenital curvature is not clearly known. Peyronie's disease (PD) is thought to develop due to the accumulation of dense fibrotic plaque on the tunica albugineae secondary to repeated microvascular injuries and traumas.[2] While congenital penile curvature is rarely observed, the frequency of curvature due to Peyronie's disease varies from 0.4–13%.[3] Especially in PD, changes observed in the diameter and length of the erect penis and difficulty in having intercourse due to pain, inability to enjoy sexual intercourse, and discomfort felt by the partner may impair the quality of life of the patient and his partner.[4]

Surgical treatment is performed in patients with PD having 30–60 degrees of penile curvature who do not respond to medical treatment and also in patients with congenital curvature. In these patients, Yachia (incision corporoplasty), Nesbit (excision corporoplasty) or 16-dot tunical plication techniques are applied.[5-7] In patients with insufficient penile length and curvature angle >60 degrees, penile lenghtening techniques (incision/excision ± graft application) are applied in patients with good erectile capacity, while penile prosthesis is applied in patients with erectile dysfunction.[8]

KEY MESSAGES

- According to this study, there were no significant differences in patient satisfaction, recurrence, and complication rates among Yachia corporoplasty, Nesbit corporoplasty, and 16-dot penile plication techniques.
- Recurrence rate was higher in the 16-dot penile plication.
- Penile shortening was observed most frequently in the Nesbit corporoplasty group.

The side effects and complication rates of tunical plication techniques are low and the most commonly observed complications are decreased penile sensation, painful erection, penile shortening, palpable penile nodule, and recurrence.[9]

We aimed to evaluate the long-term results and patient satisfaction of patients who underwent Yachia corporoplasty, Nesbit corporoplasty, or 16- dot penile plication technique for the management of penile curvature.

METHODS

Our single-center, retrospective study population included 68 patients who underwent penile plication for penile curvature between 2010 and 2023 with a followup period of at least one year. The current study was conducted following the approval of Local Ethics Committee of Gaziantep University (protocol no: 2024/419).

Study participants

Before the procedure, the presence of a curvature in all patients was confirmed by photographs taken from above and one side of the erect penis. The etiology and direction of the curvature, erectile functions of the patients, and tunical plication techniques applied were recorded. Data regarding the long-term results of the study patients were obtained via telephone interviews. Complications, such as loss of penile sensation, erectile dysfunction, recurrence of penile curvature, subcutaneous nodules, and penile shortening, that may be observed after the surgical procedures were evaluated.

Data on penile shortening was based on the patient's declaration. The quality of life question, "From 0–6, how satisfied are you with the results of the surgery?" was used to estimate the patients' level of satisfaction with the surgery; scores ranging from 0 (delighted) to 6 (terrible) were used to assess the satisfaction level of the all participants. Patients whose satisfaction with the procedure was assessed with a score of ≥4 were defined as dissatisfied patients.

Inclusion and exclusion criteria

Patients with normal erectile function, penile curvature angle between 30–60 degrees, those experiencing difficulty or unable to achieve sexual intercourse due to penile curvature, cosmetically or psychologically affected patients, patients without hourglass or hinge deformities, and those who had not previously used a traction device and/or had not undergone intralesional injection were included in the study. Patients who were unresponsive to treatment with phosphodiesterase 5 inhibitors (PDE5-I) before the procedure or who had penile Doppler ultrasound-proven erectile dysfunction (systolic velocity <35 cm/s, diastolic velocity >0 cm/s), angle of curvature >60 degrees, short penis, and a history of hypospadias, chordee, and penile surgery were excluded from the study.

Surgical technique

The penile surgeries of the study patients were performed by two urologists (AE, ÖB), both of whom are fellowship-trained andrologists and urology professors with extensive experience, having performed a high volume of cases in penile surgery.

Three different techniques were compared without any randomization. In all techniques, the penis was degloved from the superficial border of the Buck's fascia from the circumcision line. A tourniquet was applied to the penis and Buck's fascia was incised from the opposite side of the curvature following construction of an artificial erection.

In the Nesbit and Yachia procedures, the neurovascular bundle (NVB) was dissected meticulously in cases with the lateral or ventral curvature. In the dorsal curvature, the corpus spongiosum was dissected when necessary. In the Nesbit technique, an ellipsoid excision was made through the tunica albuginea, whereas in the Yachia technique, a longitudinal tunical incision was made. If the width of the upper and lower borders of the tunica albuginea held by the Allis clamp was >1 cm, more than one partial excision or incision was made to prevent dog ear deformity. The tunical defect was closed with running 2/0 non-absorbable braided polyester (ethıbond, Prolene®) sutures to prevent fluid leakage.

In Lue's 16-dot penile plication technique, 16 (two pairs) points were marked so that the center of the curvature and the entry and exit points of the sutures were 0.5 cm apart. A 2/0 non-absorbable polyester braided suture was passed through the previously marked points on tunica albuginea and tied with at least five knots. Sutures were placed in the peridorsal vein, contralateral and peri-urethral region in patients with ventral, lateral, or dorsal curvatures without dissecting NVB and corpus spongiosum, respectively.

In all techniques, penile straightening was confirmed by creating an artifical erection after the procedure. Then Buck's fascia, subcutaneous tissue, and skin were closed successively.

Statistical analyses

In descriptive statistics, numerical variables were expressed as means and standard deviations (SD), and categorical variables as frequencies and percentages. The normality of the variables was assessed using the Shapiro-Wilk test. Kruskal-Wallis analysis of variance was used to evaluate data that did not fit the normal distribution. Chi-squared test or Fischer exact test was used for categorical variables. Statistical analyses were performed using IBM SPSS for Windows version 22.0. A $p<0.05$ was accepted as statistically significant.

RESULTS

The mean (±SD) age of the 68 patients included in the study was 37.34±16.81 years. The patients had ventral (n=35, 51.5%), dorsal (n=15, 22.1%), and lateral (n=17, 25.4%) penile curvatures.The patients were operated with the indications of congenital curvature (n=45, 66.9%), PD (n=9, 13.2%), and acquired curvature (n=14, 20.6%). The patients underwent Yachia corporoplasty (n=27, 39.7%),16-dot penile plication (n=26, 38.2%), and Nesbit corporoplasty (n=15, 22.1%) (Table 1)

When the demographic data of the patients were analyzed according to the surgical techniques applied, no difference was observed among them in terms of age, etiology, and direction of curvatures (p=0.134, p=0.878, and p=0.088, respectively). When the postoperative complications were evaluated, mean penile shortening of 1.80±1.43 cm was observed in patients who underwent Nesbit corporoplasty, without any statistically significant difference among techniques applied in terms of this parameter (p=0.096). There was no difference between surgical techniques employed regarding loss of penile sensation (p=0.892) and recurrence (p=0.302).

Table 1. Demographic characteristics of the patients

	Mean ± SD
Age (years)	37.34±16.81
Penile shortening (cm)	1.18±1.45
Satisfaction score	0.80±0.71
	n (%)
Loss of penile sensation	8 (11.8)
Recurrence	14 (20.6)
Presence of nodules	19 (27.9)
Painful erection	12 (17.6)
Direction of penile curvatures	
Ventral	35 (51.5)
Dorsal	15 (22.1)
Lateral	17 (25)
Etiologies of penile curvatures	
Congenital	45 (66.9)
Peyronie's disease	9 (13.2)
Maturational	14 (20.6)
Surgical techniques used	
Yachia corporoplasty	27 (39.7)
Nesbit corporoplasty	15 (22.1)
16-dot penile plication	26 (38.2)

SD: standard deviation.

When suture-related complications were evaluated, there was no difference in the presence of subcutaneous nodules (p=0.239), while painful erection was observed in patients who underwent Yachia corporoplasty (n=1, 3.70%), Nesbit corporoplasty (n=5, 33.33%), and 16-dot penile plication (n=6, 23.07%) (p=0.020) (Table 2). When pairwise comparative evaluations were made between groups, it was observed that the frequency of painful erections was significantly lower in the Yachia corporoplasty group when compared to the Nesbit corporoplasty group (p=0.025). There was no difference in this respect when 16-dot plication group was compared with Yachia and Nesbit corporoplasty groups (p=0.098, p=0.761, respectively).

When the satisfaction levels of the patients were evaluated, it was found that there was no difference between the satisfaction scores of the patients according to the techniques used (p=0.288). Although the rate of dissatisfaction with the 16-dot plication technique was 23.07% (n=6), the groups did not differ significantly regarding this issue (p=0.557) (Table 2). When the results of the correlation analysis of the factors affecting the satisfaction level of the patients were

evaluated, a negative correlation (r=-0.516, p=0.006) was found between postoperative recurrence and application of the 16-dot plication technique. According to the results of the correlation analysis, corporoplasty techniques and satisfaction levels, penile shorteninig (r=-0.482, p=0.001), recurrence (r=-0.659, p<0.001), and postoperative presence of penile nodules (r=-0.320, p=0.044) were found to negatively affect the satisfaction levels (Table 3).

DISCUSSION

The current classification of penile curvatures by Trost et al was made based on the presence of PD, and divided into four categories. The non-PD-related curvatures are classified as congenital (lifelong), maturational (occurring after puberty), and trauma-related penile curvatures.[1] Although chordee originates from rudiment tissue on the skin or corpus spongiosum, fibrous tissue on the dartos, or skin defects, the penile curvature disappears with the excision of these fibrous plaques. Therefore, chordee must be differentiated from congenital penile curvatures.[10] Since trauma-related penile curvatures may cause complications, such as loss of penile sensation and formation of palpable penile nodules, this patient group was excluded from the study and etiologic classification was made according to the remaining three groups of patients.

There is no medical treatment option for PD-unrelated groups, while medical treatment is recommended for PD-related groups until the plaque enters into a stable phase. In cases with persistent curvature in the stable phase, surgical options are offered to the patient.[8] Reconstructive surgery procedures performed for the management of penile curvatures include Nesbit corporoplasty, Yachia corporoplasty, and penile plication techniques in which the convex side of the tunica albuginea is shortened (tunical shortening) or the concave side is lengthened by incision and grafting (tunical lengthening).[11] As stated by Kadioğlu et al, tunical shortening procedures are ideal penile reconstructive techniques in patients with good erectile capacity, in cases where <20% penile shortening is expected after the procedure, and in those with penile curvature <60 degrees.[11] In our study, we evaluated the surgical results of patients who underwent tunical shortening procedures, including Nesbit corporoplasty, Yachia corporoplasty, and Lue's 16-dot plication techniques.

The literature shows that in patients who undergo penile plication surgery due to congenital penile curvature, the presence of a dorsal curvature and curvature angle >30 adversely affects the outcomes of penile shortening procedures (p<0.001).[12] While penile shortening rates of 16–74% are observed when tunical plication technique is used, this rate was reported to be 0–50% for Nesbit and modified Nesbit corporoplasties.[13]

Table 2. Demographic data of the patients and observed complications according to surgical techniques

	Yachia corporoplasty	Nesbitt corporoplasty	16-dot plication	p
Number (%) of cases	27 (39.70)	15 (22.06)	26 (38.24)	0.141
Age, years (mean ± SD)	40.93±16.83	38.73±19.33	32.81±14.75	0.134
Penile shortening (cm) (mean ± SD)	0.96±1.40	1.80±1.42	1.04±1.48	0.096
Satisfaction score (mean ± SD)	0.65±0.63	1.00±0.65	0.83±0.81	0.288
Dissatisfaction rates n, (%)	3 (11.11)	3 (20.00)	6 (23.07)	0.557
Direction of penile curvatures n, (%) Ventral Dorsal Lateral	 13 (48.14) 7 (25.93) 7 (25.93)	 8 (53.34) 4 (26.66) 3 (20.0)	 15 (57.70) 4 (15.38) 7 (26.92)	0.878
Etiologies of penile curvatures, n (%) Congenital Peyronie's disease Maturational	 13 (48.14) 4 (14.82) 10 (37.04)	 12 (80.00) 2 (13.34) 1 (6.66)	 20 (76.92) 3 (11.54) 3 (11.54)	0.088
Loss of penile sensation, n (%)	4 (14.82)	1 (6.66)	3 (11.50)	0.892
Recurrences, n (%)	4 (14.82)	2 (13.34)	8 (30.76)	0.302
Presence of nodules, n (%)	6 (22.22)	7 (46.66)	6 (23.07)	0.239
Painful erection, n (%)	1 (3.70)	5 (33.33)	6 (23.07)	0.020

SD: standard deviation.

Table 3. Correlation analysis of factors affecting satisfaction levels

		Satisfaction rate	
		16-dot plication	Corporoplasty
Penile shortening	r	-0.017	-0.482**
	p	0.931	0.001
Loss of penile sensation	r	0.147	0.174
	p	0.463	0.276
Recurrence	r	-0.516**	-0.659**
	p	0.006	<0.001
Presence of nodules	r	-0.094	-0.320*
	p	0.639	0.044
Painful erection	r	0.069	-0.211
	p	0.731	0.186

*p<0.01. **p<0.001.

In a study of 40 patients who underwent Nesbit corporoplasty for PD, the mean (±SD) preoperative penis length of 14.83±1.47 cm decreased to 12.19±1.57 cm after reconstructive surgery. Although penile shortening was observed in all 40 patients, only six (15%) expressed discomfort from penile shortening.[14] In our study, when penile shortening was evaluated according to the patients' self-reports, maximum penile shortening was observed in the Nesbit corporoplasty group, without any statistically significant intergroup difference in this regard.

The use of absorbable sutures is an important causative factor for recurrence in tunical plication techniques. In a study by Leonardo et al, recurrence was observed in all patients where absorbable sutures were used, whereas it was not encountered in any patient in whom non-absorbable sutures were employed.[15] Salabaş et al found recurrence of penile curvature in nine of 54 patients (16.7%) who underwent penile shortening surgery for PD and reported higher recurrence rates in non-diabetic patients (due to higher cavernosal artery blood pressures and more frequent nocturnal erections impeding plication sutures) and those with biplanar penile curvatures.[16,17]

In one study, postoperative recurrence of penile curvature was not observed during one-year followup of patients who underwent the 16-dot penile plication procedure, while in another study, recurrence was encountered during the same period in nine (17.3%) of 54 patients who underwent Nesbit corporoplasty.[18,19] In accordance with the literature, non-absorbable sutures were used and recurrence was observed most frequently in the 16-dot plication group, but without any statistically significant difference between groups.

Loss of penile sensation and erectile dysfunction were more frequently observed in corporoplasty group due to elevation of NVB and disruption of corporal integrity. Since NVB elevation is not required or minimal in plication techniques, penile sensation loss is less common.[20] The use of non-absorbable sutures is a risk factor for the presence of palpable nodules/sutures, which are more commonly observed in tunical plication techniques.[9,21]

In the modified Lue's 16-dot plication technique, the endpoints of the sutures are joined at midpoints and confined between the tunical fold. No nodules or sutures were found in any patient operated using this technique.[22] It has been reported that no suture-related complications were observed after the use of absorbable sutures; however, it should be kept in mind that the use of absorbable sutures is a risk factor for recurrence of penile curvature.[15,23]

Recurrence rates of postoperative penile curvature have been reported as 35.1% in patients who underwent tunical plication using non-absorbable sutures and 18.9% in patients who underwent corporoplasty using the same type of sutures.[9] In these studies, it was observed that the incidence rate of dissatisfaction related to suture-related complications was at a very low level and the rate of painful erection was between 0–5.4%.[9,21,22]

Postoperative satisfaction rates vary from 63–84% for corporoplasty and from 63–93% for tunica albuginea plication techniques.[24] The higher rates of dissatisfaction with corporoplasty techniques can be related to the need for additional treatment for the maintenance of erection after the procedure and the higher rate of decrease in penile sensation.[24,25] The relatively lower satisfaction rates with the tunical plication technique have been attributed to the presence of a palpable nodule, pain during erection, and penile shortening.[26]

In our study, although the rates of discomfort due to the procedures applied varied from 11.1–23.7%, the highest rate of dissatisfaction was observed in the 16-dot plication group. In the 16-dot penile plication group recurrence (p=0.006), the presence of nodules and penile shortening had a negative effect on satisfaction level of the patients.

Limitations

Our study had a single-center, retrospective design and the data collection process was based on patients ' self-reports, which resulted in lack of objective measurements. Since the study was retrospective in nature, the curvature angle of all patients was not recorded and the improvement in the curvature angle could not be calculated. Although preoperative curvature angle was not known in some patients, the evaluation of the postoperative photographs of these patients in the erect state was decisive in terms of detecting recurrence rates.

As in other studies, since evaluation of postoperative patient satisfaction was based on subjective criteria, prospective, randomized controlled studies using objective assessment criteria performed with larger patient populations will help us better understand the long-term efficacy of different surgical techniques used to correct penile curvatures and improve patient satisfaction.

CONCLUSIONS

We evaluated the long-term outcomes and patient satisfaction levels of patients who underwent surgical treatment for congenital and acquired penile curvatures.

There were no significant differences in patient satisfaction, recurrence, and complication rates between Yachia corporoplasty, Nesbit corporoplasty, and 16-dot penile plication techniques; however, the recurrence rate was higher in the 16-dot penile plication group, which had a negative effect on patient satisfaction.

Although penile shortening was observed most frequently in the Nesbit corporoplasty group, statistically significant intehgroup differences were not observed.

In general, all surgical techniques provided satisfactory results and the most important factors associated with patient satisfaction were penile shortening, recurrence of penile curvature, and postoperative presence of palpable nodules. Our findings suggest that all three techniques can provide successful results with appropriate patient selection.

COMPETING INTERESTS: The authors do not report any competing personal or financial interests related to this work.

REFERENCES

1. Trost L, Mulhall J, Hellstrom W, et al. Creation of a novel classification system (PTNM) for Peyronie's disease and penile curvature using evidence-based criteria. *J Urol* 2024;212470-82. https://doi.org/10.1097/JU.0000000000004072
2. Chevallier D, Benizri E, Volpé P, et al. La Peyronie. Acquisitions historiques, épidémiologiques, physiopathologiques. Approches diagnostique et thérapeutique. *Rev Med Interne* 1997;18:41-5. https://doi.org/10.1016/S0248-8663(97)82714-2
3. Dibenedetti DB, Nguyen D, Zografos L, et al. A population-based study of Peyronie's disease: Prevalence and treatment patterns in the United States. *Adv Urol* 2011;2011:282503. https://doi.org/10.1155/2011/282503
4. Nelson CJ, Mulhall JP. Psychological impact of Peyronie's disease: A review. *J Sex Med* 2013;10653-60. https://doi.org/10.1111/j.1743-6109.2012.02999.x
5. Yachia D. Modified corporoplasty for the treatment of penile curvature. *J Urol* 1990;14380-2. https://doi.org/10.1016/S0022-5347(17)39871-3
6. Nesbit RM. Congenital curvature of the phallus: Report of three cases with description of corrective operation. *J Urol* 1965;93:230-2. https://doi.org/10.1016/S0022-5347(17)63751-0
7. Gholami SS, Lue TF. Correction of penile curvature using the 16-dot plication technique: A review of 132 patients. *J Urol* 2002;1672066-9. https://doi.org/10.1016/S0022-5347(05)65085-9
8. Hatzimouratidis K, Eardley I, Giuliano F, et al. EAU guidelines on penile curvature. *Eur Urol* 2012;62543-52. https://doi.org/10.1016/j.eururo.2012.05.040
9. Çayan S, Aşci R, Efesoy O, et al. Comparison of patient's satisfaction and long-term results of 2 penile plication techniques: Lessons learned from 387 patients with penile curvature. *Urology* 2019;129:106-12. https://doi.org/10.1016/j.urology.2019.02.039
10. Baskin LS, Duckett JW, Lue TF. Penile curvature. *Urology* 1996;48347-56. https://doi.org/10.1016/S0090-4295(96)00213-0
11. Kadioglu A, Küçükdurmaz F, Sanli O. Current status of the surgical management of Peyronie's disease. *Nat Rev Urol* 2011;895-106. https://doi.org/10.1038/nrurol.2010.233
12. Sahin C, Yesildal C. The factors that cause penile shortening after plication surgery in patients with congenital penile curvature. *Actas Urol Esp (Engl Ed)* 2023;4799-103. https://doi.org/10.1016/j.acuroe.2022.08.004
13. Makovey I, Higuchi TT, Montague DK, et al. Congenital penile curvature: Update and management. *Curr Urol Rep* 2012;13290-7. https://doi.org/10.1007/s11934-012-0257-x
14. Bokarica P, Parazajder J, Mazuran B, et al. Surgical treatment of Peyronie's disease based on penile length and degree of curvature. *Int J Impot Res* 2005;17170-4. https://doi.org/10.1038/sj.ijir.3901255
15. Leonardo C, De Nunzio C, Michetti P, et al. Plication corporoplasty versus Nesbit operation for the correction of congenital penile curvature. A long-term follow-up. *Int Urol Nephrol* 2012;4455-60. https://doi.org/10.1007/s11255-011-9976-z
16. Salabas E, Ozmez A, Ermec B, et al. Penile curvature after Peyronie's disease surgery: What are the risk factors?. *Andrologia* 2020;52e13860. https://doi.org/10.1111/and.13860
17. Hamed HA, Roaiah M, Hassanin AM, et al. A new technique, combined plication-incision (CPI), for correction of penile curvature. *Int Braz J Urol* 2018;44180-7. https://doi.org/10.1590/s1677-5538.ibju.2016.0578
18. Li WJ, Bao JW, Guo JH, et al. Effects of plication procedures in special cases of Peyronie's disease: A single-center retrospective study of 72 patients. *Asian J Androl* 2022;24294-8. https://doi.org/10.4103/aja202219
19. Kadioğlu A, Salabaş E, Özmez A, et al. Peyronie's disease surgery: Surgical outcomes of 268 cases. *Turk J Urol* 2018;4410-5. https://doi.org/10.5152/tud.2018.87405
20. Chung E, Ralph D, Kadioglu A, et al. Evidence-based management guidelines on Peyronie's disease. *J Sex Med* 2016;13905-23. https://doi.org/10.1016/j.jsxm.2016.04.062
21. Shefi S, Pinthus JH, Mor Y, et al. To bury the knot, then, is better than not. *Urology* 2008;711206-8. https://doi.org/10.1016/j.urology.2007.12.079
22. Salem EA. Modified 16-dot plication technique for correction of penile curvature: Prevention of knot-related complications. *Int J Impot Res* 2018;30117-21. https://doi.org/10.1038/s41443-018-0018-6
23. Altieri VM, Greco F, Lisanti RC, et al. Clinical and penile Doppler outcomes using a modified, tourniquet free, Nesbit plication for severe Peyronie's disease. *Transl Androl Urol* 2021;102857-70. https://doi.org/10.21037/tau-20-1338
24. Levine LA, Larsen SM. Surgery for Peyronie's disease. *Asian J Androl* 2013;1527-34. https://doi.org/10.1038/aja.2012.92
25. Savoca G, Scieri F, Pietropaolo F, et al. Straightening corporoplasty for Peyronie's disease: A review of 218 patients with median follow-up of 89 months. *Eur Urol* 2004;46610-4. https://doi.org/10.1016/j.eururo.2004.04.027
26. Kim DH, Lesser TF, Aboseif SR. Subjective patient-reported experiences after surgery for Peyronie's disease: Corporeal plication versus plaque incision with vein graft. *Urology* 2008;71698-702. https://doi.org/10.1016/j.urology.2007.11.065

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