

Penile prosthesis implant with bi-triangular excision and graft for surgical therapy of Peyronie's disease: A case report

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DISCUSSION

The majority of surgeons choose the Wilson's manual modeling maneuver (1) to correct penile curvature during inflatable PPI with a certain degree of rectification. This approach can generate reasonable results, but in 53.6% of cases, additional procedures are required to rectify the penis (2). Moreover, some patients complain that the curvature is still apparent in the flaccid state. A new technical variation of Wilson's modeling technique was described by *Perito et al.* (3). They used a surgical blade and nasal speculum to fracture the tunica albuginea plaque before manual modeling with the aim to reduce the residual curvature. Unfortunately neither technique corrects the penile shortening caused by PD. Furthermore, they are not compatible with semi-rigid or malleable prostheses, because they require the corpora cavernosa to be totally expanded radially to apply manual modeling to correct the penile deviation. Some research also suggests that the manual modeling maneuver is associated with significantly higher prosthesis mechanical failure rates (4). Although *Segal et al.* reported the same mechanical failure rate comparing PPI with and without modeling (control) (2), one criticism of that report was the high rate of mechanical failure in the control group (13.7%) compared to the literature (4%), indicating a bias (5).

A different approach was used by *Austoni et al.* (6), who demonstrated that tunica albuginea incision and graft could restore penile length and permit the use of semi-rigid or malleable prostheses. These authors also reported that for each 30° deviation, the penis lost 1.5 cm in length; deviation > 60° leads to a reduction of more than 3 cm. Therefore, large deviations can be more effectively treated by plaque incision/excision and grafting.

One advantage of our approach is that PPI involves the same scrotal incision used for degloving, sparing the patient from another incision. Even a distal shaft correction can be performed using this approach (7). Another advantage was to perform penile corporoplasty prior to opening the penile prosthesis package, unlike other reports of tunica incision/excision and grafting after PPI. This practice may decrease the penile prosthesis infection rate by reducing prosthesis manipulation and skin

exposure time. We recommend PPI after penile re-gloving and placing a drape over the incision (no-touch technique). This technique also permits the use of a malleable prosthesis because it corrects the penile curvature with no geometrical or mechanical abnormality. No residual curvature should be observed even in the flaccid state.

Our patient gained 4.5 cm on the short side of his tunica albuginea, thus recovering some penile size lost. This gain would not be possible using the modeling technique and variations.

CONSENT

Written informed consent was obtained from the patient for the publication of this case report and the use of the accompanying images.

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