

Re: Surgical Treatment of Erectile Dysfunction and Peyronie's Disease Using Malleable Prosthesis

Peyronie's Disease (PD) is a growing problem in our community, and in contrast to the literature most patients affected with this disease are usually aged between 20 and 40 years. Prevalence is 3-9% according to Rochelle and Levine report.⁽¹⁾ But according to my experience, PD is more prevalent. Schwarzer and colleagues suggest an increasing incidence of PD.⁽²⁾ May be, this increase is correlated and appears to coincide with the advent of phosphodiesterase-5 inhibitors and other erection-enhancing drugs. Usta and colleagues⁽³⁾ have demonstrated that erectile dysfunction (ED) is highly prevalent in patients with PD, ranging from 20% to 54%. Most of the affected patients seek help in late phase of PD, when the plaques have involved nearly whole of the penis, and resulted in severe ED. Nearly all of the patients in advanced stage of PD (when the plaques have already been calcified) suffer from some degree of ED. Surgical techniques for the managing of PD are divided into 3 categories: procedures which shorten the convex, uninvolved side of the tunica albuginea, techniques which lengthen the concave, involved side, and penile prosthesis implantation (PPI). I agree with the authors that in advanced stage of disease, PPI provides the most promising outcome and the patients will be more probably to reserve potency than after conservative management. The penile curvature associated with PD can be effectively corrected by a Nesbit procedure, but this can result in a considerable amount of penile shortening. To address this issue, plaque excision and grafting with some materials such as tunica vaginalis, temporalis fascia, dermis or synthetic material has been proposed. Unfortunately, these procedures have high risk of ED after surgery. Surgical treatments should be considered after PD has stabilized. Surgical correction of the penile curvature in PD should not be performed until at least 12 months after the onset and after the symptoms have been stable for 6, and preferably, 12 months. When surgical management is indicated, it must be individualized, directing not only at returning penile function but also restoring as much as possible the prior status of the patient. Erectile function evaluation is crucial to detect whether surgery is indicated or not, as well as determining the most suitable surgical technique. Penile tumescence, or incomplete rigidity, is often mistaken for normal erection, and the objective measurement of erection by pharmacologically induced erection is vital prior each intervention, it may alter the therapeutic plan. PPI is an outstanding option for men with PD associated with ED. When surgery is selected for treatment of PD, the quality of erection is imperative in the selection of surgical procedure and its method. The quality of erection may be classified as good, impaired but satisfactory with use of a phosphodiesterase-5 inhibitor, or poor even with treatment. In this latter group, the PPI should be considered, because the results are excellent. Plaque excision and dermal graft was the standard management modality until a decade ago, but this procedure may now be considered as outdated. Substantial number of patients with advanced PD, has widespread fibrosis in corpora cavernosa. It should be highlighted that PPI into corpora cavernosa with severe fibrosis is a challenging and risky procedure. In present study, it is not clear how PPI has been done in patients with fibrosed corpora cavernosa. The blind use of surgical devices to excavation can give rise to perforation of the tunica albuginea or damage to the urethra. The most difficult task during implanting a prosthesis is dilatation of the corpora cavernosa, whether through or alongside the fibrotic tissue, while protecting the integrity of the tunica albuginea and keeping the urethra from being injured. This is very difficult action, bearing in mind that, dilatation mandates the use of force against resistance, generally in a blind manner. Unexperienced surgeons should refrain from operating these cases and instead refer them to the tertiary referral centers with enough experiences. Various surgical methods and devices have been developed to diminish difficulty and complication rate of the procedure, including specialized devices which permit controlled sharp resection instead of blunt dilatation, incisions that allow safer and easier access to the penile crura, or procedures that allow visual control of the process. Ignored weakening of the tunica albuginea is the consequence of blind vigorous

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dilatation with resultant posterior migration of the penile prosthesis despite initial absence of perforation.⁽⁴⁾ This is the cause why none of the “blinded techniques” has a 100% PPI survival rate, and why they may end up with damages to the urethra, or with perforations whether proximal or distal. Ultrasound guidance can be used to monitor and adjust any of the surgical instruments in the corpora cavernosa, thus avoiding perforation of the tunica albuginea and injury to the urethra.⁽⁵⁾ Similarly, ultrasound guidance allows safe use of sharp instruments, such as the Otis Urethrotome, laparoscopy trocar, and scissors.⁽⁵⁾ Principal aims after surgical correction of penile deformity include normal pain-free erection, comfortable coitus both for patient and his partner, and curvature that do not hamper vaginal intromission. While postoperative satisfaction is vital, some of the adverse effects of surgical procedures are unacceptable for patients; such as significant residual penile curvature, sensation of bumps under the skin,⁽⁶⁾ penile sensory alterations, penile shortening,⁽⁷⁾ and etc. Weaknesses of present study include a retrospective design, small sample size, and subjective evaluations of satisfaction and erectile function. Future studies for the surgical management of PD are needed using objective measures for determining penile blood flow, such as penile dynamic color Doppler ultrasonography, and objective modalities for determining accurate penile rigidity and tumescence, such as Rigiscan[®] nocturnal penile tumescence test.

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