

· Clinical Experience ·

Ventral phalloplasty

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Abstract

Aim: To present a simple technique during penile prosthesis implantation that promotes the perception of increased phallic length. **Methods:** The penoscrotal web is defined. A “check mark” incision is made with excision of scrotal tissue. Excellent exposure is provided for implantation of the cylinders, pump and reservoir. Wound closure is performed longitudinally. **Results:** This technique is a modified extension of surgeries described in the pediatric literature for webbed penis. Loss of penile length following penile implantation surgery is worrisome for patients suffering from erectile dysfunction (ED). This technique helps with patient satisfaction, cosmetic results, and improves perception of penile length. **Conclusion:** Ventral phalloplasty is a safe, technically simple procedure that may be performed in concert with penile prosthesis implantation or as a stand alone procedure under certain circumstances. (*Asian J Androl* 2008 Jan; 10: 155–157)

Keywords: penile implantation; impotence; phalloplasty; genital lengthening

1 Introduction

Penile prosthesis surgery is a well-established, safe, and effective treatment option for impotence from varied etiologies. Patient satisfaction has been reported to be high and durable [1]. Concerns exist, however, about post-surgical shortening of the penis [2], in addition to well documented loss of length from the causes of impotence [3]. Various techniques to increase apparent phallic length have been described [4, 5]. At our institution, placement of the prosthesis is performed by an incision carried through the penoscrotal web. The excision of this tissue has been associated with excellent results and patient satisfaction, together with a perceived increase in length [6]. Herein, we discuss our technique in detail.

2 Technique

Intravenous preoperative antibiotics are administered

within two hours of incision. The exposed skin on the lower abdomen, genitalia, and perineum receives a thorough cleansing. Drapes are applied in standard fashion. The head of the penis is grasped and upward traction applied to its full stretched length. Holding the scrotum along the median raphe and stretching it caudally defines the extent of the penoscrotal web (Figure 1A). In our experience there is great variability in the insertion of the scrotum; some webs are very generous while others are less appreciable, commencing near the base of the penis.

Subsequently, the boundaries of the incision are marked. This may be facilitated by placing a light behind the web, thereby silhouetting the penile shaft and upper curve of the testicles. The incision line on the y-axis begins at a fingerbreadth's clearance from the shaft (Figure 1B), thereby ensuring sufficient skin for later closure. It is carried down near the penoscrotal angle, then upward in a soft convex curve to resemble a “check-mark” (Figure 1C). In our original series, the upward stroke was straight, and this “V” shape led to a small bulge or “dog ear” in the inferior portion of the wound after it was closed. Although this irregularity became less noticeable with time, the current modification has produced a more immediately aesthetically pleasing result.

An added benefit of this incision is the resulting ample

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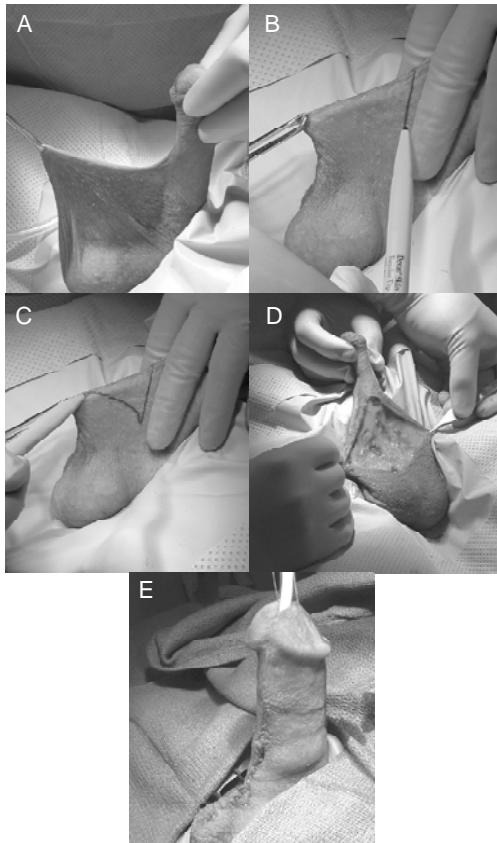


Figure 1. (A): The penoscrotal web. (B): Incision marked one fingerbreadth from shaft. (C): “Check mark” incision. (D): Exposure. (E): Completed phalloplasty.

workspace with good exposure of the proximal ventral corporal bodies and easy access to the inguinal canal and scrotum (Figure 1D). This allows for the cylinders, pump, and reservoir to be implanted in standard fashion. A foley catheter is inserted and the bladder drained prior to dissecting the space for the reservoir. On occasion we will leave the catheter in place until the morning of the first postoperative day. Optionally, a drain may also be placed and left overnight. Interrupted 3-0 monocryl sutures are used to close a deep layer of tissue over the prosthetic device. The skin is then re-approximated along the axis of the shaft with another layer of interrupted 3-0 monocryl sutures (Figure 1E). This has prevented wound breakdown, specifically in the portion over the penoscrotal angle where the most wound tension is expected.

3 Discussion

Historically, our technique has evolved from the treatment of the webbed variant of inconspicuous penis as

described in the pediatric literature. Several methods have been described to release the penis. An early, simple technique involved vertically excising the redundant, high insertion scrotal skin along the dorsum of the shaft including a portion of the scrotum. This produced a diamond-shaped defect with the penoscrotal angle as the midpoint. The wound could be approximated in varying ways, most often longitudinally [7–9].

We have found that applying this technique of ventral phalloplasty to adults is a safe, simple procedure with excellent cosmetic results. It works well with inflatable penile prosthetic implantation, but is also useful in patients undergoing surgery for Peyronie’s disease. The excellent exposure provided is a key added benefit to both operations. We have also performed ventral phalloplasty as a stand alone procedure in select cases, such as a means of securing an external drainage device in spinal cord injury patients.

Phallic shortening is a well described phenomenon that occurs after radical prostatectomy, which is a common indication for prosthetic surgery. The most significant decrease in penile length appears to occur at one week after removal of the prostate, continuing at a lesser rate over the next year [10]. Early changes (first 3–6 months) have been postulated to be from sympathetic overdrive following cavernosal nerve injury; later changes are likely due to irreversible fibrosis and structural changes. Similar etiologies may be present with other diseases that cause nerve damage and impotence, such as diabetes [3].

To counteract this effect, release of the suspensory ligament during implantation has been described. While this method is effective and also associated with high patient satisfaction, it risks damage to the cavernosal nerves and may require a more extensive dissection [4]. Others have explored using cylinders as tissue expanders in corporal bodies scarred from a prior infected prosthesis or a history of priapism. In one series utilizing this technique, the scrotal skin was incised horizontally then closed vertically without excision of tissue [5].

Our data comparing the technique of ventral phalloplasty with a standard longitudinal penoscrotal incision during penile implantation has recently been reported [6]. We demonstrated excellent patient satisfaction (98%) and perception of increased penile length (84%) with release of the penoscrotal web, while a majority of patients in whom the standard approach was used felt there was a decrease in length (84%). The perception of decreased length following implantation agrees with other recently published data [2], although, interestingly, no significant difference between actual stretched penile length measured preoperatively and the length at one and six months post-implantation was found.

4 Conclusion

Ventral phalloplasty is a safe and technically simple technique. Patient satisfaction is high, and it may aid with perceived and real fears of phallic shortening. The technique facilitates placement of a penile prosthetic. It is also useful in the surgical correction of Peyronie's disease and in spinal cord injury patients who need an external drainage device.

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