A Technique for Foreskin Reconstruction and Some Preliminary Results

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Abstract

A small, carefully selected group of circumcised, predominately homosexual males, expressing severe dissatisfaction with their circumcised condition, have responded favorably to operative reconstruction of the foreskin. The surgical technique for reconstructing the foreskin and the results are described.

Part of the American male population regards the foreskin as an important part of the ideal male figure. Members of this group feel that the foreskin is associated with masculinity (Levin, 1976; Money, Hampson, & Hampson, 1957) Some of these men are active in three political action groups. (Uncircumcised Society of America Introductory Newsletter, 1976; Wallerstein, 1980), and lobby against childhood circumcision (Penn, 1963), a position also supported in the last decade by professional organizations. Some of these men have been motivated to seek surgical reconstruction. We report here our experiences with such a group, for some of whom we have reconstructed a foreskin.

Patient Population

Referral from earlier patients have generated our patient population. All patients requesting foreskin reconstruction undergo an extensive psychological diagnostic battery and a diagnostic psychiatric evaluation. Surgery is not offered to those patients who any member of the team feel have unrealistic expectations. Surgery has also been refused any who display significant untreated psychiatric disorders or with whom we are unable to easily develop comfortable effective communication. Following the independent clinical evaluations by the surgeon, psychiatrist, and psychologist, the entire case is reviewed in conference with specific attention to the above issues, and a final decision to accept or reject the patient is made. Our patients are extensively counseled about the nature of the multiple surgical procedures necessary, possible complications and risks, and the expected results. All patients have been in good general health and free of active genitourinary tract disease.
Plan of Operation

The procedure is done in four major stages. First a transverse bipedicle scrotal flap is used to cover a cylindrical turnover flap of the distal penile skin. In the second and third stages, the bipedicle flaps are divided, and the ends of the pedicles are joined. Residual deformities are corrected as a fourth stage.

Figure 1

Size of the foreskin reconstruction is determined by measuring the distance from the corona to the tip of the glans.
The skin and subcutaneous tissue is incised all the way around the penis.

*Cylindrical Turnover Flap* (see Figure 1).

The first stage is done under general anesthesia. The distance from corona to tip of the glans is measured. A point equidistant, proximally, is marked on the shaft of the penis. An incision encircling the penis is made at this point (see Figure 2), and a cylindrical flap of penile skin, based upon the corona, is elevated. This turnover cylindrical flap becomes the lining of the reconstructed foreskin (see Figure 3).
Figure 3

The cylindrical flap of penile skin is everted over the distal penis.

Figure 4

A bipedicle flap equal in width to the
A bipedicle scrotal flap is then elevated. This flap is equal in width to twice the turnover flap, so it is sufficiently wide to cover the raw surface of the turnover flap as well as the donor site from the turnover flap. This flap is transversely oriented on the anterior surface of the scrotum. The penis is buried beneath the bipedicle flap (see Figures 5 & 6.

*Figure 5*

The penis is buried beneath the pedicle flap.
Pedicle Division (see Figures 7 & 8).

The second stage is scheduled after induration and edema of the flaps have totally resolved. The time for this is highly variable but is usually several months. In this stage, the pedicles are divided, wrapped about the penis, and sutured together. This is done in stages to assure the new foreskin has gradually developed good circulation from the penis. Edema following these stages has been significant and may persist for several months. Again, the duration may be variable.
A portion of each pedicle is divided and sutured to the other side.

Division of the final portion of the pedicle frees the penis from the scrotum.

Residual Deformities

Any residual deformities or scars are corrected in the final stage. These are minor notches and dimples corrected in a variety of ways to achieve an optimum aesthetic result.

Scrotal hair is rarely a problem. When present it has been handled by plucking.

Complications

Significant complications have included two scrotal hematomas both of which healed without intervention. In one patient, an attempt to elongate the bipedicle scrotal flap during the initial procedure was made. That flap showed temporary vascular compromise but did eventually recover. However, at the time of pedicle division several months later, this flap sustained partial loss. Sufficient tissue remained to allow construction of a satisfactory result with local flaps.

One patient developed epididymitis 2 weeks following the first stage. The patient responded to antibiotic management.

Results

We have evaluated 11 patients for foreskin reconstruction. Three were judged not
suitable for operative management after initial screening. One of these had undergone 18 previous procedures to attempt reconstruction by another surgeon. That surgeon had refused to consider any further attempts. We were unable to establish effective rapport with the patient, felt he had unrealistic expectations, and therefore, refused to operate on him. All clinicians thought this patient's foreskin looked very nearly normal. The patient stated during psychiatric evaluation that he wanted a "perfect phallus." None of the evaluators felt comfortable working with this man, who seemed to harbor much rage.

Another patient was rejected because of his youth and emerging identity conflicts. This patient was 18 years old. (all others were over 30). He was actively conflicted about his family relations and openly expressed typical late adolescent uncertainty about who he was. Psychological testing suggesting unconscious connections between his family conflicts and foreskin concern. The psychiatrist was concerned that such a request in a late adolescent might not reflect the kind of stable body image issues which benefit for surgical intervention.

The third patient was rejected because he has a long-standing, untreated, significant affective disorder. His interview behavior was anxious, agitated, and bordered on the inappropriate. Psychological testing suggested that he had a bipolar disorder. Since he seemed unaware of the problem and had never sought treatment, this was suggested to him before reapplying for surgery.

One patient accepted for operation had had previous reconstruction attempted elsewhere. We were able to improve his condition with local flaps. Seven patients' reconstructions were started by us. Nine of our patients were homosexual and two were heterosexual. All but the most recent applicants have completed all surgical stages.

Every patient has reported the results of the operation to be pleasing and gratifying. Most have reported increased glanular sensitivity. Most of the reconstructed foreskins have developed transient edema, which, in every case, becomes less frequent and less severe with the passage of time (in one case, up to 1 year). When not edematous, the reconstructed foreskins have been soft, pliable, and mobile. Retraction during erections has been smooth and without difficulty. Subtle color discrepancy is present between penile skin and reconstructed foreskin, as is a difference in skin texture and contour.

Comments

A team experienced and comfortable in dealing with sexual identity problems is necessary if these patients are to be dealt with effectively and safely. Our team is a subgroup of the University Gender Dysphoria Team. The surgeon must be experienced in planning flaps and imaginative in designing local flaps for completion of the reconstructions. The patients must be willing to undergo multiple procedures over a long period of time (up to 1 year), and to withstand some disruption of his life-style during that time. Further research on both the surgical techniques and the patients who seek this surgery is indicated.

References

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