

a number 15 lancet. In group C the incision was not repaired but was left to secondary healing. In group G cyanoacrylic glue was only applied on the incision region and the tissue was compressed to become adhered for 2 to 3 minutes. In group P the incision was primarily repaired with 6-zero polydioxanone. In group PG cyanoacrylic glue was applied on the incision region following primary repair.

The authors found that there was no inflammation and hyperemia-bleeding in only group G. In group PG only 1 rat had these histopathological features. Total healing was observed in all rats in the 2 groups. Slight fibrosis developed in the cavernous tissue in groups G and PG, similar to that in rats in group P, and the authors stated that this finding showed that cyanoacrylic glue has no effect on preventing fibrosis. The authors concluded that Glubran2 can be used in cavernous surgery due to its hemostatic, adhesive and anti-inflammatory properties, and that application of this material on the ruptured region of corpus cavernosum without suturing seems to be beneficial according to the primary repair method.

The authors are to be commended for that elegant study and for providing a new option that would be used in the future for cavernous repair. Nevertheless, it is important to point out that “penile fracture” is defined as “a rupture of the corpus cavernosum due to a blunt trauma in an erect penis. Lesions on a flaccid penis or lesions in the suspensor ligament of the penis are not included in this definition”. So, the mechanism of injury used in this experimental work is far different from a fracture. It would be better to name it as a “cavernous lesion”. A lesion caused by a scalpel in the albuginea is much less traumatic than a lesion caused by a blunt trauma to an erect penis with a thin albuginea submitted to a high intracavernosal pressure. A typical penile fracture is followed by swelling, hematoma and penile deformity, which would cause greater inflammatory reaction.

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RECONSTRUCTIVE UROLOGY

Surgical techniques in substitution urethroplasty using buccal mucosa for the treatment of anterior urethral strictures

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Objectives: Since the resurgence in the use of buccal mucosa (BM) in substitution urethroplasty in the late 1980s and early 1990s, there has been controversy as to which surgical technique is the most appropriate for its application.

Methods: The authors performed an updated literature review. Several centres have published widely on this topic, and the points considered include the use BM in dorsal onlay grafts, ventral onlay grafts, and tubularised grafts and the role of two-stage procedures.

Results: In experienced hands, the outcomes of both dorsal onlay grafts and ventral onlay grafts in bulbar ure-

throplasty are similar. The dorsal onlay technique is, however, possibly less dependent on surgical expertise and therefore more suitable for surgeons new to the practice of urethroplasty. The complications associated with ventral onlay techniques can be minimised by meticulous surgical technique, but in series with longer follow-up, complications still tend to be more prevalent. In penile urethroplasty, two-stage dorsal onlay of BM (after complete excision of the scarred urethra) still provides the best results, although in certain circumstances a one-stage dorsal onlay procedure is possible. In general, ventral onlay of BM and tube graft procedures in the management of penile strictures are associated with much higher rates of recurrence and should therefore be avoided.

Conclusions: In experienced hands the results of the ventral and dorsal onlay of BM for bulbar urethroplasty are equivalent. Two-stage procedures are preferable in the penile urethra, except under certain circumstances when a one-stage dorsal onlay is feasible.

Editorial Comment

Since the initial reported use of buccal mucosa for urethral reconstruction in 1894, the properties of the tissue itself have not substantially changed despite improvements in suturing materials, instruments and reconstructive surgical techniques (1).

Patterson and Chapple compared the most frequently used published techniques of urethroplasty. They concluded that the technique does not seem to be as critical for the success of the transplant as the high surgical skills required reconstructive surgery (2). This takes into account the use of 5/0 or even 6/0 sutures under magnification reducing host tissue and buccal mucosa traumatization (3). The substantial knowledge is that buccal mucosa has good elasticity, supports neo-vascularization because of its lamina propria, boosts the local immune status with its increased amount of IgA, provides similarity to cytokeratin and ensures a low risk of inflammation or scar development.

Thus, buccal mucosa with its satisfying long-term outcome is still the golden standard against which we have to validate any new material or approach (4).

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Lichen sclerosus of the male genitalia and urethra: surgical options and results in a multicenter international experience with 215 patients

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Background: Surgical options in male patients with genital lichen sclerosus (LS) involving the anterior urethra still represent a challenging issue.

Objective: To review the outcome of surgical treatment in patients with genital and urethral LS.

Design, Setting, and Participants: Multicenter, international, retrospective, observational descriptive study performed in two specialized centers. Two hundred fifteen male patients underwent surgery for histologically proven genital LS involving the foreskin and/or the anterior urethra.

Intervention: Circumcision (34 cases), meatotomy (15 cases), circumcision and meatotomy (8 cases), one-stage penile oral mucosal graft urethroplasty (8 cases), two-stage penile oral mucosal graft urethroplasty (15 cases), one-stage bulbar oral mucosal graft urethroplasty (88 cases), and definitive perineal urethrostomy (47 cases). **Measurements:** Primary outcome was considered a failure when any postoperative instrumentation was needed, including dilation, or when recurrence was diagnosed. **Results and Limitations:** The average follow-up was 56 mo (range: 12-170 mo). Circumcision showed 100% success rate with no recurrence of the disease; meatotomy, 80% success rate; circumcision and meatotomy, 100% success rate; one-stage penile oral mucosal graft urethroplasty, 100% success rate; two-stage penile oral mucosal graft urethroplasty, 73% success rate; one-stage bulbar oral mucosal graft urethroplasty, 91% success rate; and definitive perineal urethrostomy, 72% success rate. Limitations include short follow-up for recording neoplastic degeneration and no instrument to investigate quality of life.

Conclusions: Patients with LS disease restricted to the foreskin and/or external urinary meatus showed a high surgery success rate. In patients with penile urethral strictures or panurethral strictures, the use of one-stage oral graft urethroplasty showed greater success than the staged procedures.

Editorial Comment

Although the cause of lichen sclerosus (LS) is still unknown, its clinical course has been well described in recent years, and in particular, in a current review of Kulkarni et al. (1). It is still astonishing that histological evaluation is not or incorrectly performed, according to the data by Jasaitiene et al. Thorough histological evaluation revealed that LS occurs almost equal in boy and men (2).

With the systematic retrospective work-up of Kulkarni et al., it became obvious that early diagnosis and correct treatment leads to a long-term satisfying outcome (3). Therefore, it should be requested that any resected tissue of the foreskin, glans or urethra has to be examined by a pathologist with the exclusion of LS.

Even for the most extensive reconstruction, the authors suggest the use of buccal mucosa in a one-stage urethroplasty, which is opposite to Patterson and Chapple who suggest the two stage approach, to have a higher success rate (4). This contribution makes it once again obvious how important it might be to exclude LS both for the course of the disease as well as the result of a possible reconstructive surgery.

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