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RESURFACING AND RECONSTRUCTION OF THE GLANS PENIS

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INTRODUCTION AND OBJECTIVE: To describe the techniques and results of surgical reconstruction of the glans penis lesions.

METHODS: Seventeen patients (mean age 53.2 years) were treated by resurfacing or reconstruction of the glans penis for benign, pre-malignant and malignant penile lesions. The aetiology of the lesions was: one Zoon's balanitis, four lichen sclerosus, one carcinoma *in situ*, five squamous cell carcinoma and six squamous cell carcinoma associated with lichen sclerosus. Five cases were treated using glans skinning and resurfacing; 5 cases using glans amputation and reconstruction of the neo-glans and 7 cases using partial penile amputation and reconstruction of the neo-glans. Glans resurfacing and reconstruction were performed using a skin graft harvested from the thigh.

RESULTS: The mean follow-up was 32 months. All patients were free of local pre-malignant/ malignant recurrence. Patients who underwent glans resurfacing reported glandular sensory restoration and complete sexual ability. Patients who underwent glansectomy or partial penectomy with neo-glans reconstruction maintained sexual function and activity, although sensitivity was reduced as a consequence of glans/ penile amputation.

CONCLUSIONS: In selected cases of benign, pre-malignant or malignant penile lesions, glans resurfacing or reconstruction can assure a normal appearing and functional penis, without jeopardizing cancer control.

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MODIFIED TUBULARIZED INCISED PLATE URETHROPLASTY FOR HYPOSPADIAS REPAIR: A LONG-TERM RESULTS OF 764 PATIENTS

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INTRODUCTION AND OBJECTIVE: To present our experience with a modification of tubularized incised plate (TIP) urethroplasty for treatment of subcoronal and distal penile hypospadias.

METHODS: A total of 764 children with primary hypospadias (462 subcoronal and 302 distal penile) underwent hypospadias repair using TIP urethroplasty with a modification of double breasted de-epithelialized skin flap. The technique involves, in addition to the standard TIP, the use of the dorsal prepuce which was divided in two flaps. The right flap was de-epithelialized on both the outer and inner sides and transferred as interposing layer between the neourethra and the coverings. The left flap was de-epithelialized on the inner side and transferred ventrally as skin coverage. The follow-up ranged between 3 and 52 months with a mean of 17 months.

RESULTS: Excellent functional and cosmetic results were achieved in 738 patients (96.6%). Urethral fistulae were encountered in 16 cases (2 %) and were repaired successfully. Meatal stenosis was noted in 8 cases (1%) and successfully treated. Two patients developed complete disruption of the wound (0.2%) which was corrected.

CONCLUSIONS: Excellent functional and cosmetic results can be achieved after repair of subcoronal and distal penile hypospadias using TIP urethroplasty with the modification of using double breasted de-epithelialized skin flap.

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STANDARD SNODGRASS TECHNIQUE IN CONJUNCTION WITH DOUBLE LAYERS COVERING OF NEOURETHRA BY DORSAL DARTOS FLAP REPRESENT THE FIRST CHOICE OF THERAPY FOR HYPOSPADIAS

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INTRODUCTION AND OBJECTIVE: To evaluate the validity of tubularized incised plate (TIP) urethroplasty technique for different kinds of hypospadias

METHODS: From June 2002 to December 2003 and from March 2006 to January 2007 total of 36 patients aged 1-22 years (average 7.5) were operated using the concept of TIP urethrolpasty. The hypospadiac meatus were subcoronal in 28 (77.7%), midshaft in 4 (11.11%) and penoscrotal in 4 (11.11%) patients. The standard TIP urethroplasty were performed in the primary cases (26 patients) while in the secondary cases (4 patients) and in the boys who were circumcised before admission (6 patients), modified TIP urethroplasty were used. The standard technique consist of; U-shaped incision, midline incision and subcutaneous flap covering. The dorsal subcutaneous flap was harvested from preputial skin and dissected from the midline then both layers of flap were transposed to the ventral side of the penis with symmetric rotation. Each layer of the subcutaneous flap was sutured to the wings of the glans and corpora cavernosa, thus the neourethra became completely covered with double layers of well-vascularized tissue. In patients with chordee, hypospadias repair and chordee release were done at one stage. The mean periods of hospitalization and follow-up were 0.92 days and 4.19 months respectively.

RESULTS: No fistula was observed in boys who underwent primary reconstruction using standard TIP urethroplasty. Fistula was observed in two patients (5.55%); One patient with penoscrotal hypospadiass who underwent 2-stage repair, and another one was circumcised before admission. One patient had meatal stenosis at the early postoperative period which was corrected by dilatation of the external meatus at intervals up to two months postoperatively. Three boys had very narrow fistula which just allow leaks of few drops of urine through urination which was closed spontaneously within two months.

CONCLUSIONS: Standard TIP urethroplasty with double layers covering of neourethra by dorsal subcutaneous tissues is the procedure of choice for the treatment of primary cases of distal / midshaft hypospadias and, the concept of this technique seems to be suitable for proximal, secondary and even complicated hypospadias reconstruction.

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MEDIUM-TERM FOLLOW-UP OF DORSAL ONLAY GRAFT URETHROPLASTY USING PENILE SKIN OR BUCCAL MUCOSA IN ADULT BULBOURETHRAL STRICTURES

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INTRODUCTION AND OBJECTIVE: The concept of dorsal onlay graft (DOG) urethroplasty was based 10 years ago on providing a better graft bed, which might improve repair longevity in comparison to ventral grafts. Shortly after, buccal mucosa (BM) was reappraised as an eventually more suitable graft material than prepucial skin (PS). The goal of this study is to assess the overall outcome of DOG urethroplasty on a medium term basis, and to determine whether BM is better than PS grafts in such repairs of bulbar urethral strictures.

METHODS: From 1998 to 2006, 48 patients with bulbar urethral strictures (>2cm) underwent DOG urethroplasty. PS or BM free grafts were used according to tissue availability and patient preference. According to the severity oft the stricture, a resection-anastomosis of the tightest segment was associated. End-points were uroflowmetry, IPSS, number and so as complications.

RESULTS: Forty two % of patients had had previous stricture treatment, eventually multiple (1 dilatation, 16 endoscopic incisions and 4 urethroplasties). Mean follow-up was 38 months (3-107). Overall success rate was 81 % A PS graft was used in 29 patients (60%) and a BM graft in 19 patients (40%). Mean stricture length was 4.3cm (2-8) for PS and 4.1 cm (2-9) for BM. In 52% of cases, a resection-anastomosis of the tightest segment was done. PS graft mean length was 5.9 x 2.7 cm and 5.2 x 2.4 cm for BM graft. Post-operative, there was no difference neither in uroflowmetry nor in IPSS between the 2 groups (respectively 19.7 ml/s, range 5-55, IPSS = 8.7 for PS; 17.7 ml/s ,range 6-40, IPSS = 8 for BM). 3 post-operative complications for PS (hypertrophic scar, chronic prostatitis and compartimental syndrome) and 2 for MB (abcess and gingival synechie). Nine patients, 6 (21%) patients with PS and 3 (16%) with MB graft patch, required further treatment due to stricture recurrence.