The Gudplay technique: preliminary experience with a new technique for midshaft and penoscrotal hypospadias

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Aim of the Study

Midshaft and penoscrotal hypospadias with moderate ventral curvature can be treated in one stage with preservation of the urethral plate by a Duplay tubularization. After gaining 5 years' experience with the GUD technique, we have proposed the GUDplay technique, associating the Duplay tubularization of the plate till the coronal area and the association with the GUD technique.

Methods

We have treated 7 patients in two institutions with this approach: 3 as primary cases and 4 as a second stage after a Thiersch repair. After penile degloving with an U-shape incision at the urethral plate, we dissect spongious flaps laterally to the plate as suggested by Bhat. A 6.0 PDS non interrupted running subepithelial suture is made to tubularize the plate and create the neourethra stopping at the coronal area and the proximal hypospadia is converted into a distal hypospadia and the glans can be treated as a GUD procedure. The urethra is sutured to the glans and the wings are joined in the midline by 6.0 PDS sutures. An indwelling 10Fr silicone tube is left for 7-10 days.

Results

All patients had an excellent outcome without any complications, no fistula occurrence and void with a natural and straight stream. Glans healing was nice, all cases presenting a conic-shaped aspect. The urethral meatus was normal. Mean follow-up is however short of only 8.5 months

Conclusions

We believe that the GUDplay technique has shown good results and will probably be regarded as an alternative for proximal hypospadias. We acknowledge however the still limited follow-up and agree it has to be confirmed with longer observation and larger cohort. We also believe that surgeons should be familiar with the GUD repair for distal hypospadias before trying the GUDplay technique.

Longitudinal dorsal island flap repair for single-stage repair of hypospadias: back to the future? (video presentation)

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Aim

To review our results with the use of longitudinal dorsal island flap (LDIF) as onlay for the repair of distal and midpenile hypospadias.

Methods

A retrospective review of all cases of hypospadias repaired using LDIF as onlay over a 3-year period was performed. The type of hypospadias, length of LDIF used and post-operative follow-up results were reviewed.

Results

Of a total of 558 hypospadias cases managed over 3-year period, 167 (30%, mean age 2.3 years) underwent LDIF onlay repair. All LDIF cases had distal or midpenile meatus with chordee $<30^0$, which was corrected by degloving +/- dorsal plication. The mean length of LDIF was 19mm. At a median follow-up of 12 months, 11 (6.6%) children had complications (5 fistulae, 3 glans dehiscence, 1 meatal stenosis, 2 skin necrosis and 1 neourethral balooning. The cosmetic results were acceptable, and follow-up uroflow studies demonstrated good flow rates.

Discussion

The tubularised incised plate (TIP) repair is gradually losing popularity due to the high complication rate and several authors finding it unsuitable for the majority of distal hypospadias with poor urethral plates (UP). In contrast to TIP, LDIF creates a good caliber and compliant neourethra irrespective of the width of the UP; the design of the flap ensures adequate vascularity without risk of penile torsion or ischemia of the remaining penile skin.

Conclusions

For distal and midpenile hypospadias without severe chordee, we found single-stage LDIF onlay repair as a reliable alternative with acceptable results and a low complication rate.

Endoscopic management of symptomatic prostatic utricles in hypospadias (video)

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Aim

Large symptomatic prostatic utricles (PU) in hypospadias patients pose a difficult problem for surgical management. We review our experience with endoscopic management of such cases and discuss the technique.

Methods

Over a 5-year period, 6 cases were managed. Five children had undergone 2-stage hypospadias repair for severe hypospadias, while 1 child had uncorrected hypospadias. All children were symptomatic with bladder outlet obstruction, recurrent urinary infections or epididymo-orchitis. None of the cases had urethral stricture. All children were managed by cystoscopic incision and widening of the mouth of the PU using bugbee electrode and electrocautery. A bladder catheter was left in place for 1 week after the procedure.

Results

Of the 6 children, 4 became asymptomatic after the procedure. The other 2 children showed significant improvement in obstructive symptoms but continue to have episodes of epididymo-orchitis. There were no procedure-related complications in any child.

Discussion

The surgical excision of symptomatic prostatic utricles in children with hypospadias is a complex and cumbersome procedure, with a high risk of residual utricle and injury to seminal vesicles and vas. By enlarging the opening of the utricle, endoscopic technique achieves free drainage of the prostatic utricle into the urethra, thus relieving the obstructive symptoms.

Conclusions

Endoscopic management of symptomatic prostatic utricles in children with hypospadias is a simple and effective technique and may be the first line of management in such cases.

Preputial Reconstruction: a video presentation

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Aim:

In many clinical settings circumcision at the time of hypospadias repair is the routine. Preputioplasty is an underutilised alternative in the setting of distal hypospadias.

Method:

This video presentation illustrates that following a TIP urethroplasty, orthoplasty and intermediate waterproofing layer coverage prepucioplasty is commenced. The foreskin is held by stay sutures over the glans. Parallel incisions are marked and made in the prepuce. Repair is performed in 3 layers using 6-0 Polydioxanone suture. Care is taken to ensure that the reconstruction will allow easy retraction of the foreskin.

Conclusion:

Preputial reconstruction is feasible in many cases of distal hypospadias and should be considered as an alternative to circumcision.