III Simposio Internacional de Cirurgia Urologica Reconstrutora

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Rio de Janeiro - Brazil
Posterior Urethroplasty
Goal of surgery of the posterior urethra

Repair the urethral disruption or defect

preserving urinary continence
Center for Reconstructive Urethral Surgery
Posterior Urethroplasty

Concerns and concepts based on 140 patients
Preoperative evaluation of the patient

retrograde urethrography
Cystography - supine position

50 cc
100 cc
200 cc

Cystography - standing position

cough
voiding

Center for Reconstructive Urethral Surgery
Combined retrograde and voiding study
Endoscopic evaluation of the anterior urethra
Endoscopic evaluation of the bladder neck and posterior urethra
Posterior urethroplasty using a combined endoscopic and surgical approach

suprapubic endoscopic approach

perineal surgical approach

light
Preparation of the patient

Simple lithotomy position
Preparation of the patient

Allen stirrups with sequential inflatable compression sleeves

Center for Reconstructive Urethral Surgery
Two surgical teams work simultaneously
Appropriate surgical instruments and devices

Atraumatic retractor and hooks

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Appropriate surgical instruments and devices

Flexible perineal light

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Cut on the light
Cut on the tip of the endoscopic instrument
In posterior urethroplasty, some ancillary manoeuvres are suggested to obtain a free-tension anastomosis.

When?

- pubectomy
- urethral rerouting
Pubectomy – Urethral rerouting

1. Relationship between the prostatic apex and the pubic bone

2. Length and blood supply to the bulbar urethra
Relationship between the prostatic apex and the pubic bone
Conventional radiological study fail in showing the relationship between the pubic bone and the prostatic apex.
Dynamic three-dimensional spiral computed tomographic cysto-urethrography: a novel technique for evaluating post-traumatic posterior urethral defects

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Length and blood supply to the bulbar urethra
Bulboprostatic urethral gaps shorter than a third of bulbar urethral length are usually corrected by a simple perineal operation.

For longer gaps an elaborated perineal or transpubic procedure is usually done.
A third of bulbar urethral length: 1.6 cm

According to the Koraitim’s gapometry:

simple perineal anastomosis

?
Ancillary manoeuvres (pubectomy - urethral rerouting) in posterior urethroplasty are more frequently reported on:

- redo-cases
- pediatric cases
- pre-adolescent boys
- patients from Egypt, India, Nepal

All these patients showed an insufficient length or blood supply to the bulbar urethra.
6 out of 52 children had a short urethra that could not bridge the gap. transpubic urethroplasty via perineal approach was performed.
The ultimate success rates were 87.5% in the pediatric population versus 100% in adults.
Penile and bulbar urethral length

- black: 6.56
- white: 6.11
- hispanic: 6.01
- amerindian: 6.00
- east indian: 5.89
- middle eastern: 5.87
- east asian: 5.32
The BBC reported an Indian Council of Medical Research study finding that “about 60% of Indian men have penis which are between three and five centimeters shorter than international standards used in condom manufacture”

http://en.wikipedia.org/wiki/Penis_size
Conclusions

Penile length may represent one of the main factors influencing the surgical technique (pubectomy vs simple repair) and the outcome of posterior urethroplasty.
Conclusions

More studies, with numerous series of patients, are necessary to better clarify the role of penile length in influencing the surgical technique and the success rate of posterior urethroplasty.
Next month, this lecture will be fully available in our website

Thank you!