Penile Length Loss During Nesbit-Type Surgery: A Prospective Study
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Introduction & Objectives

- Nesbit’s-type procedures, including tunical plication +/- incision necessarily shorten the convex side of penile curvature.
- Patient focused research has shown a common concern pre-operatively is penile length loss (PLL) as a result of surgery.
- The AUA Peyronie’s Disease Guideline does not comment on expected PLL.
- The British Association of Urological Surgeons (BAUS) information leaflet states 1cm length loss per 15° curvature correction.
- European Association of Urology information leaflet states and a PLL of 10-15mm is expected.
- In our experience curvature correction surgery does not correlate to PLL closely, but appears to be multifactorial; and with a lesser PLL observed overall.
- The aim of this study was to determine length loss after correction and whether there were any predictive factors of PLL.

Methods

- 3 year prospective cohort study including all patients undergoing penile curvature procedures (without graft).
- Stretched penile length (cm) was measured pre-operatively by applying firm digital pressure to the pubic symphysis and extending to maximum natural elasticity.
- Biplanar penile curvature was measured by goniometer during prostaglandin-E1 induced erection pre and post-operatively.
- Surgical correction performed with prostaglandin-E1 induced erection without tourniquet.
- Post-operative penile length was measured prior to detumescence.
- Data was analysed via scatterplot with line of best fit to determine length loss per curvature correction.

Results

- 100 patients identified and all included.
- Median pre-operative curvature measured 41° (IQR 30° - 51°, range 20° - 91.6°).
- Median post-operative curvature measured 2° (0-5°).
- Mean length loss was 9mm (IQR 5-11mm, range 0-20mm).
- Mean length loss per 15° of curvature correction was 3.6mm.
- Multivariate regression analysis revealed no significant factors affecting length loss.

Conclusion

- Length loss during penile curvature correction is significantly less than literature and guidelines suggest.
- There is only weak correlation between preoperative degree of curvature and length loss.
- Range of PLL may be due to variable concave plaque densities or ductility of the tissues, resulting in variable elastic remodelling.

References:
1. Information for Patients; Penile Curvature / Peyronie’s disease. EAU. 2017 https://patients.uroweb.org/
2. Penile Straightening by Plication or Plaque Incision and Grafting. BAUS. 2019. Leaflet 16/087