Clinical outcome of urinary incontinence symptoms dependent on the urethral length after apical fixation

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Introduction

Recent publication showed a restoration of urinary continence in over 40% of patients (with mixed and urgency urinary incontinence) after apical fixation (cervicosacropexy, CESA, and vaginosacropexy, VASA). An even higher continence rate was obtained after an additional transobturator tape (TOT).

So far, the length of the urethra was not considered by placing “midurethal tapes” and according to literature urethral lengths are varying between 24 – 40 Millimeters (mm).

1. This study focused on the clinical relevance (continence rates) of a “midurethral” placed tape after apical fixation.

2. Is the urethral length a preoperative predictor?

Material and Methods

Measurement of the urethral length under anesthesia before surgery

1. Correlation of measured urethral lengths (UL) with:
   - patient’s age
   - body weight
   - parity

2. Analysis of different UL according to different types of urinary incontinence (UUI, MUI, SUI)

Results

- 327 patients, mean urethral length (UL) of 31 mm (normal distribution)
- no correlation of UL with age, bodyweight or parity

Discussion / Conclusion

Among each type of urinary incontinence: mean UL 31 – 32 mm

- Mixed urinary incontinence (MUI) (39%)
- Pelvic organ prolapse and total Incontinence (38%)
- Urgency urinary incontinence (UUI) (12%)
- Stress urinary incontinence (SUI) (12%)

- one out of three women has a deviating UL; clinical relevance: measurement of urethral length preoperatively necessary!

- Patients’ age, bodyweight, and parity are not suitable preoperative predictors for urethral length (in this collective)