

## MULTICENTER PROSPECTIVE STUDY OF THE ADVANCE XP MALE SLING: OUTCOME AND COMPLICATIONS

### Hypothesis / aims of study

In recent years, several studies showed the effectiveness and safety of the AdVance sling for the treatment of male stress urinary incontinence (SUI). In end of 2010 the second generation of Advance, the AdVance XP was introduced.

The AdVance XP addresses several important issues:

- anchors: higher capability during strenuous activities in the early postoperative period to reduce early failure due to sling loosening or slippage
- new needle shape for easier tunneling

Aim of the study was to evaluate the efficacy and safety of the AdVance XP sling in male SUI after radical prostatectomy in a prospective multicenter study.

### Study design, materials and methods

In total 55 patients were included in this prospective multicenter study. Patients with urine loss while lying, previous incontinence surgery and a coaptive zone <1cm were excluded. Postoperatively, a standardized 24-hour-padttest, quality of life scores (IQOL and ICIQ-UI SF), VAS for pain, IIEF5, IPSS and PGI-score were performed. All patients with 0-5g in the padtest were defined as cured and improved with a reduction of urine loss >50%.

### Results

Mean urine loss in the padtest was 379g (median 302g). After a follow-up of 3 months 69.1% of the patients were cured and 27.3% improved. Mean urine loss decreased significantly to 42g ( $p<.001$ ). mean I-QoL and ICIQ-UI SF improved significantly (both  $p<.001$ ). Mean VAS was 1 and mean PGI 1.5.

After a follow-up of 6 months ( $n= 42$ ) 78.6% of the patients were cured and 14.3% improved. Mean urine loss decreased significantly to 20g ( $p<.001$ ). mean I-QoL and ICIQ-UI SF improved significantly (both  $p<.001$ ). Mean VAS was 0.7 and mean PGI 1.5.

After a follow-up of 12 months ( $n= 28$ ) 67.7% of the patients were cured and 19.4% improved. Mean urine loss decreased significantly to 16.4g ( $p<.001$ ). mean I-QoL and ICIQ-UI SF improved significantly (both  $p<.001$ ). Mean VAS was 0.4 and mean PGI 1.4.

There were no significant changes in IIEF5 and IPSS at 3, 6 or 12 months follow-up. No intraoperative complications occurred. In 3 patients (5.5%) persistent urinary retention/residual urine occurred due to overtensioning of the sling during removal of the Tyvek liners. In these patients one sling arm was dissected. After dissection all patients were able to empty the bladder completely and without negative change of the continence status. Therefore, the implantation technique was subsequently changed so that a Mersilene tape is placed around both sling arms before tensioning in order to fix the sling arms in position during removal of the Tyvek liners. These changes resulted in no further cases of persistent urinary retention. No erosion occurred, no explantation was necessary. 2 patients had UTIs with fever and were treated with antibiotics. 3 patients needed for a few days oral pain medications.

### Interpretation of results

The AdVance XP shows good effectiveness and low complication rates in a follow-up of up to 1 year. However overtensioning of the sling especially during removal of the Tyvek liners resulting in persistent urinary retention is possible.

### Concluding message

The AdVanceXP is safe and effective for the treatment of persistent male stress incontinence.

### Disclosures

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