

## THE TRANSOBTURATOR MALE SLING SYSTEM FOR POSTPROSTATECTOMY INCONTINENCE – ONE YEAR EXPERIENCE WITH A NOVEL TECHNIQUE

### Hypothesis / aims of study

The transobturator male sling system was developed by *Rehder* and *Gozzi* in Austria and introduced in 2006. The concept of the device comprises the suspension of the bulbar urethra to regain full external sphincter function after radical prostatectomy in contrast to different devices functioning only with obstruction.

### Study design, materials and methods

From 5/2007 to 7/2008 35 patients with moderate to severe incontinence were operated with the AdVance male sling system (American Medical Systems). The cause for stress urinary incontinence (SUI) was prostate surgery in all patients. 32 patients had a radical prostatectomy (25 open, 7 laparoscopic), of these 6 patients had adjuvant irradiation, 2 had a TURP, 1 had a TULIP. Average values for patient age, operative time, and hospital stay were 68 years, 44 minutes, and 4 days, respectively. Several patients had prior anti-incontinence surgery (6 bulking agents, 2 stem cells, 2 artificial sphincters).

### Results

After surgery the distribution of the stamey grade of SUI shifted from II-III° (97,1%) and 0-I° (2,9%) to II-III° (40,0%) and 0-I° (60,0%), respectively. Pre- and postoperative pad tests showed a significant reduction from 108g to 25g on average. We observed a reduction of pad use from 1-2 (5,7%), 3-6 (62,8%), 7-10 (28,6%) preoperatively to 0 (34,3%), 1-2 (31,4%), 3-6 (17,2%), 7-10 (14,3%) 3 months postoperatively. The pad use remained nearly unchanged after 6, 9, and 12 months. No major complications were seen after surgery. 4 patients had temporary urinary retention. 3 patients needed repeated surgery for repositioning of the sling. Results were significantly better in the subgroup of patients with incontinence after radical prostatectomy only without irradiation and further surgery (22).

### Interpretation of results

With the suspension of the posterior urethra a lengthening of the sphincteric extent, a circular contraction, and a better coaptation without compression of the urethra is achieved. Sphincteric deficiency, adjuvant irradiation or prior anti-incontinence surgery deteriorate the outcome. Also, patients after TURP were no ideal candidates for this procedure. The patients with mild SUI were more likely to benefit from the procedure than the patients with severe SUI, although some patients with severe SUI showed a significant reduction of the pads used.

### Concluding message

With proper patient selection the AdVance male sling system is a minimally invasive, safe, and durable technique for correcting postprostatectomy incontinence.

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| <b><i>Specify source of funding or grant</i></b>                           | <b>none</b>                                   |
| <b><i>Is this a clinical trial?</i></b>                                    | <b>No</b>                                     |
| <b><i>What were the subjects in the study?</i></b>                         | <b>HUMAN</b>                                  |
| <b><i>Was this study approved by an ethics committee?</i></b>              | <b>No</b>                                     |
| <b><i>This study did not require ethics committee approval because</i></b> | <b>retrospective clinical data collection</b> |
| <b><i>Was the Declaration of Helsinki followed?</i></b>                    | <b>Yes</b>                                    |
| <b><i>Was informed consent obtained from the patients?</i></b>             | <b>Yes</b>                                    |