



#302- LONG-TERM EFFICACY OF ARTIFICIAL URINARY SPHINCTER
FOR PURE STRESS AND MIXED INCONTINENCE: MULTI-
INSTITUTIONAL ANALYSIS OF 101 PATIENTS.



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Aim of the study

The Artificial Urinary Sphincter (AUS) represents the most effective and evidence based treatment for patients with stress urinary incontinence (SUI). Even if labelled for SUI, in clinical practice AUS is often inserted even in case of mixed incontinence (MUI), and the role of preoperative urodynamic studies is still debatable. The aim of our study is to verify if the early and long-term outcomes of AUS implantation are influenced by the consensual presence of urgency/urge incontinence at the preoperative urodynamic study.

Methods and Materials

Between 2006 and 2018, 101 patients referred to two tertiary care centres for urinary incontinence after prostatic surgery underwent AUS implantation (AMS 800). All patients underwent a pre-operative assessment with physical examination, urinalysis, cystoscopy, pad test as well as complete urodynamic evaluation. Mixed urinary incontinence (MUI) was defined as the presence of detrusor hyperactivity at urodynamics. The AUS were implanted with either one or two cuffs according to the surgeon’s preference. The follow-up included pad test, urinalysis and physical examination every three months for the first year and annually thereafter. Peri-, early and late post-operative complications were recorded during the whole follow-up period. Complete continence was defined as either the need of no pads or the use of one safety pad. Chi-squared t-test was used to analyze difference in the continence outcome in patients with SUI and MUI.

At urodynamics, 63 (62.4%) and 38 (37.6%) patients had pure SUI and MUI, respectively. A single cuff was inserted in 73 (72.3%) patients and two cuffs in 25 (24.8%). Mean and median follow-up was 47.2 and 50 months, respectively. During follow-up, 21 (20.8%) patients required AUS revision without need of AUS explantation. However, AUS explantation was needed in 8 cases (7.9%) due to infection (4) or erosion (4). Overall, 10 (9.9%) and 20 (19.8%) patients reported early and late complications, respectively. The main early complications were scrotal hematomas and urinary retention while the late main complications were infections and erosions. Eleven patients were lost to follow-up and 8 had undergone AUS explantation, resulting in 85 patients for UI evaluation. Of these, complete continence was reported in 71 (83.5%) while 8 (7.9%) and 6 (7.1%) patients were using ≤ 2 and ≥ 3 pads/daily, respectively. In 2 of these 6 patients the AUS was deactivated, even if functioning, due to other medical issues. The rate of complete continence was not different between patients with pre-operative pure SUI vs. those with MUI (85.5% vs. 80.0%, respectively, $p=0.7$).

Interpretation of the results

In our series, patients with MUI showed a similar outcome in terms of continence recovery compared to patients with pure SUI.

Results

Mean and median (IQR) age was 67.8 and 69 (64 - 72) years, respectively. Pre-operatively, 28 (21.5%) patients wore ≤ 3 pads/daily, while 73 (56.2%) ≥ 4 . Eighty-seven patients had urinary incontinence (UI) after radical prostatectomy and fourteen after surgery for benign prostatic hyperplasia (BPH). Twenty-eight patients underwent adjuvant or salvage radiation therapy.

Conclusions

Artificial urinary sphincter implantation represents a valid treatment for male patients with severe incontinence after prostate surgery. Our data show that this surgical approach is equally effective in patients with pure SUI as well as in patients with detrusor activity. The utility of pre-operative urodynamic evaluation remains questionable.

References:

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