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ADVANCE®/ADVANCE XP® MALE SLING: DEGREE OF INCONTINENCE PREDICTS FUNCTIONAL OUTCOME

HYPOTHESIS / AIMS OF STUDY

Male stress urinary incontinence (SUI) is a potential complication of radical prostatectomy (RP). Artificial urinary sphincter (AUS) remains the gold standard in the management of severe incontinence. Nevertheless, other minimally invasive approaches have been described. Advance® Male sling has been suggested for use in patients with mild degrees of stress incontinence, with overall success rate between 54-90% and low percentage of side effects.

The aims of study is to evaluate the efficacy of Advance® Male sling, identifying the pre-operative predictors of a successful outcome.

STUDY DESIGN, MATERIALS AND METHODS

All patients were considered after one year from RP and informed consent form were obtained.

Continence was evaluated with a 24-Hour Pad Weight test (24h-PW) and the Spanish validated version of International Consultation on Incontinence Questionnaire-Short Form (ICIQ-UI SF). Except in isolated cases, patients with 24h-PW >400 grams were considered for AUS.

Pre-operative urodynamic assessment and cystoscopy was performed in all cases. Patients without sphincter contraction in the "repositioning test" (sphincter closes autonomous and concentric during mid perineal elevation) were excluded.

The surgery was performed by two surgeons (A.C.S. y L.R.F.). Briefly, the fibrous portion of the central tendon was incised. A helical rounded tip needle was introduced along the lateral edge of the pubic ramus. The edge of the proximal flap of the sling should be located at the origin of the central tendon previously marked. In 26 cases, it was anchored with bio-absorbable sutures (L.R.F), while in 35 cases the sling was not fixed (A.C.S.)

Follow-up was carried out 3-monthly for the first year and 6-monthly thereafter. Cure rate was defined as no pad use

RESULTS

From February 2008 to June 2011, 61 patients with SUI after RP underwent Advance® Male sling placement. The median follow-up was 12 months (1-43).

Seven patients had history of surgery for anastomotic stricture and three of salvage radiotherapy. Pre-operatively, the median 24-Hour Pad Weight was 200 grams (25-1848), including five patients with 24h-PW >400 grams who refused AUS. Twenty-six patients had detrusor overactivity or low bladder compliance in cystometry.

The overall cure rate was 80% (49/61) and the median ICIQ-UI SF Score improved significantly from 16 (5-21) to 3 (0-21) ($p < 0.001$). No patients lost continence during follow-up.

PREOPERATIVE PARAMETERS AND SUCCESSFUL OUTCOME

| Parameter | Odds ratio | IC 95% | p |
|---------------------|------------|-------------|--------------|
| Age | 1.043 | 0.924-1.178 | 0.497 |
| Body mass index | 0.978 | 0.808-1.184 | 0.817 |
| 24h pad weight | 0.996 | 0.992-0.999 | 0.018 |
| Radiotherapy | 0.450 | 0.111-1.827 | 0.264 |
| Adverse urodynamics | 0.690 | 0.194-2.448 | 0.565 |
| Sling fixation | 0.952 | 0.265-3.424 | 0.940 |

COMPLICATIONS

Two patients (3%) presented perineal haematoma (3%) which resolved spontaneously, nine patients presented transitory acute urinary retention (15%), scrotal pain or perineal numbness was reported in 5 cases (8%) and 5 patients (8%) presented *de novo* irritative urinary symptoms.

INTERPRETATION OF RESULTS

The results obtained in this study support the need for detailed preoperative evaluation of the patient. In this evaluation the most important finding is the degree of incontinence. These results support the knowledge that suburethral meshes are not effective in severe incontinence. Besides, these data allow us to inform patients of the probability of success of surgery.

CONCLUDING MESSAGE

AdVance® male sling is a safe and efficient technique in patients with mild post-prostatectomy stress incontinence.

Although detailed pre-operative assessment is mandatory, the severity of incontinence is the only predictor of successful outcome.

Disclosures

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