HYPOTHESIS / AIMS OF STUDY

Stress Urinary Incontinence (SUI) is a common complication after prostate surgery or prostate radical radiotherapy. Artificial Urinary Sphincter (AUS) is the gold standard in patients with moderate to severe SUI. Male suburethral slings are an acceptable surgical approach in men with mild to moderate degrees of SUI.

The aim of the study is to evaluate and compare efficacy, the long-term continence and functional outcomes of slings and AUS implants in men with SUI.

STUDY DESIGN, MATERIALS AND METHODS

Prospective observational analysis of 315 patients with SUI after radiotherapy treatment or prostate surgery treated with sling (Sling group) or AUS (AUS group) before February 2017. Patients included: fulfilling 5 years of follow-up. Both primary and secondary implants were included. Exclusion criteria: patients without complete follow-up were excluded. Thirty-seven patients were excluded for not completing follow-up, finally the study group was 278 patients.

Preoperative assessment included 24-hour pad weight (24h-PT), ICIQ-U1 SF, urodynamic and flexible cystoscopy. All implants AMS 8000®, ADVANCE® and ADVANCE XP® were performed by a single experienced surgeon.

INDICATIONS:
- Except in isolated cases, patients with a 24h-PT>400g were considered for AUS and a 24h-PT<400g 24h for sling.
- The absence of sphincter contraction ("repositioning test") or previous radiotherapy were a contraindication for sling.

Follow-up was carried out once every 3 months during the first year and once every 6 months thereafter, in parallel to the oncological follow-up (PSA, 24h-pad test and ICIQ-U1 SF).

RESULTS

<table>
<thead>
<tr>
<th>Age</th>
<th>Median (range)</th>
<th>Sling group (n=134)</th>
<th>AUS group (n=140)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body mass index</td>
<td>Median (range)</td>
<td>28(21-39)</td>
<td>29(19-41)</td>
</tr>
<tr>
<td>Pad test</td>
<td>Median (range)</td>
<td>957(30-389)</td>
<td>779 (100-2109)</td>
</tr>
<tr>
<td>DM (%)</td>
<td>24 (17.91%)</td>
<td>32 (22.22%)</td>
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<tr>
<td>HTA (%)</td>
<td>58 (43.28%)</td>
<td>64 (44.44%)</td>
<td></td>
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<tr>
<td>Uroflowmetry (%)</td>
<td>9 (6.71%)</td>
<td>22 (15.27%)</td>
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</tbody>
</table>

First treatment Prostate Cancer Radiotherapy (RT/CT) Prostatectomy 133 (99.25%) 132 (93.66%)

Salvage radiotherapy (%) 1 (0.74%) 36 (24.30%)

Anastomotic stricture treated (%) 13 (9.79%) 45 (34.02%)

Table 1. Preoperative status: quantitative and qualitative variables (n=278).

INTERPRETATION OF RESULTS

Prospectively data shows (according indication) that the continence and early postoperative complications are similar. The loss of continence during patient follow-up is more evident in the AUS group. Slings seem to keep efficacy during long term follow-up.

All surgeries were performed by the same surgeon, in the same hospital, with the same preoperative evaluation and the same follow-up protocol, therefore biases in the differences in the evolution have been avoided.

CONCLUDING MESSAGE

Understanding relative rates of male slings and AUS complications, our study can help clinicians better counsel SUI patients of the surgical risks, thus promoting informed decision making and appropriate patient expectations.

REFERENCES