

ARTIFICIAL URINARY SPHINCTER (AMS 800) FOR WOMEN: CAUSES OF FAILURE.Hypothesis / aims of study

Evaluation of the efficacy and risk factors for failure and complications of artificial urinary sphincter (AUS) implantation in women with urinary incontinence due to non neurological intrinsic sphincter deficiency (ISD).

Study design, materials and methods

From May 1987 to December 2009, 240 consecutive women were treated by artificial urinary sphincter implantation. 215 were implanted for a non neurological ISD. Two main surgeons realised 93% of AUS implantation. A preoperative urodynamic assessment was required. Patients using only 0 or 1 pad at the end of follow-up were considered to be continent. The AUS implantation learning curve was studied.

Results

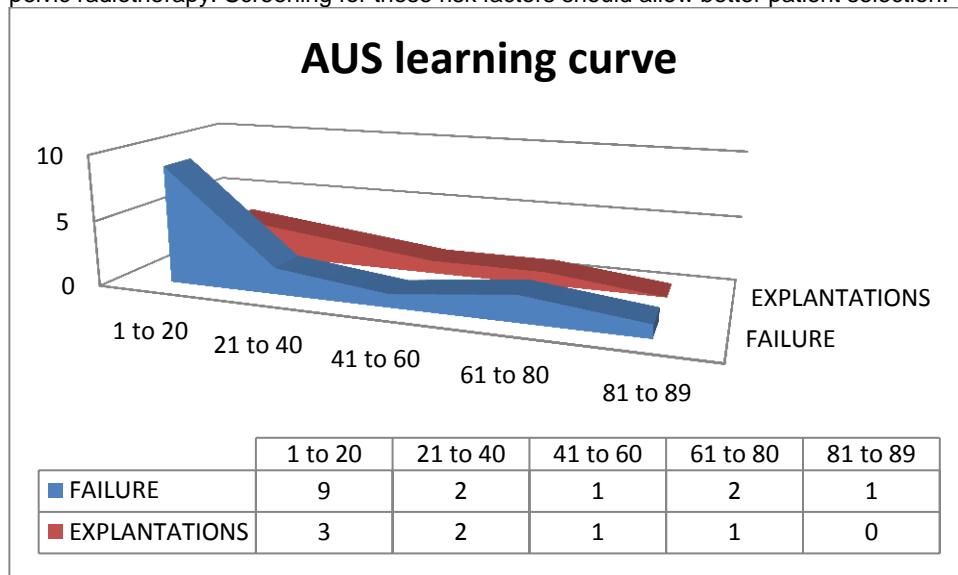
Patients had a mean age of 62.8 years and a mean follow-up of 6 years (SD 5.6 years). At the end of follow-up, 158 patients (73.5%) were continent and 170 (79%) were satisfied. Other surgical procedures to treat incontinence had been performed in 88.8% of patients. The redo rate was 15.3% after a mean interval of 8.47 years for the first redo procedure. Fifteen explantations (7%) were performed. Risk factors for intraoperative complications (10.7%) were smoking ($p < 0.001$) and big cuff size ($\geq 8\text{cm}$) ($p < 0.017$). Six patients (2.8%) were lost to follow-up. Artificial urinary sphincter failed to treat incontinence in 51 patients (23.7%), due to defective manipulation in 27.4% of cases. On multivariate analysis, risk factors for failure were age greater than 70 years (OR 2.46), a history of Burch procedure (OR 2.28) or pelvic radiotherapy (OR 4.37) ($p < 0.05$). We observed a 50% reduction of the mean number of failures between the first 20 AUS and the following 20 AUS (7/20 versus 3.5/20) via a conventional open incision.

Interpretation of results

We suggest to add a pre-operative evaluation with an occupational therapist for women after 70 years old in order to detect manual dexterity difficulties.

Concluding message

Various risk factors for failure of AUS were identified in this study: age over 70 years, history of Burch procedure and history of pelvic radiotherapy. Screening for these risk factors should allow better patient selection.



Learning curves for one surgeon: first 90 AUS

<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	it is a retrospective study about urinary incontinence surgery
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No