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PREVIOUS INCONTINENCE SURGERY AND SURGICAL VOLUME PREDICT SOCIAL CONTINENCE AND SURGICAL REVISION: RESULTS OF A LARGE MULTI-INSTITUTIONAL STUDY

Hypothesis / aims of study

Artificial urinary sphincter (AUS) is considered the gold standard for moderate-to-severe male SUI. The aim of our study is to assess efficacy and safety in a large multi-institutional cohort of patients with long follow-up (FU) and to build a model to assess predictive factors of social continence (SC) and surgical revision (SR).

Study design, materials and methods

The study included 892 patients from 16 tertiary referral centres, submitted to primary AUS implant, between 1993 and 2012, with a minimum FU of 1-year. Patients were evaluated at 1, 6 and 12 months after surgery and yearly thereafter. SC was defined as 1 security pad or less and SR as any further surgery for failure or complications. To identify predictors of SC and SR we accounted for the following variables: age, diabetes mellitus (DM), anticoagulation therapy (AC), previous incontinence surgery (PIS), radiotherapy (RT), double cuff (DC), cuff size (CS) and surgical volume (SV). Patients were sub-divided into two groups according to the median number of implants per center/year (most informative cut-off), to define low and high SV centres. We also evaluated complication rate (CR): erosions and infections and failure rate (FR): urethral atrophy and mechanical failures.

Results

The study included 892 patients from 16 tertiary referral centres, submitted to primary AUS implant, between 1993 and 2012, with a minimum FU of 1-year. Patients were evaluated at 1, 6 and 12 months after surgery and yearly thereafter. SC was defined as 1 security pad or less and SR as any further surgery for failure or complications. To identify predictors of SC and SR we accounted for the following variables: age, diabetes mellitus (DM), anticoagulation therapy (AC), previous incontinence surgery (PIS), radiotherapy (RT), double cuff (DC), cuff size (CS) and surgical volume (SV). Patients were sub-divided into two groups according to the median number of implants per center/year (most informative cut-off), to define low and high SV centres. We also evaluated complication rate (CR): erosions and infections and failure rate (FR): urethral atrophy and mechanical failures.

Interpretation of results and Concluding message

Our large-cohort long-FU study, confirms AUS as gold standard for post-op SUI. However it is still associated with high SR rates. PIS resulted to be negatively associated with SC. The results concerning SV confirm previous studies reporting no plateau for learning curve, with reduction of revisions only after 200 procedures. These results represent a further step in counselling and treatment of SUI after prostatic surgery.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective **Helsinki:** Yes **Informed Consent:** Yes