CONCLUSIONS: We found stable urethral support, no secondary prolapses, concerning changes in flow parameters in the sling group over time, and a high level of satisfaction despite a notable failure rate based on very strict SISTER outcome criteria.

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CAPSULE-TO-CAPSULE CLOSURE MAY HAVE LESS URETHRAL STRICTURE RATES THAN MUSCOSA-TO-MUSCOSA CLOSURE FOR SURGICAL MANAGEMENT OF ARTIFICIAL URINARY SPHINCTER EROSION: A PRELIMARY FIVE-CENTER STUDY

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INTRODUCTION AND OBJECTIVES: Urethral erosion after artificial urinary sphincter (AUS) cuff placement can occur in as many as 5% of patients. Customary practice is to completely remove the AUS and allow the urethra to heal over a Foley catheter. Subsequent urethral complications and their management have not been reported. We examined our experience with surgical management of urethral complications following AUS erosion to try to determine the best way to manage these complicated cases.

METHODS: A retrospective database of AUS erosion cases, performed by five high-volume surgeons was analyzed. From 2004-2011, 22 men were identified as having urethral erosions from an incontinence procedure: 21 from a AUS, 1 after an Invance sling, and were followed up for significant urethral complications after repair of their urethral erosion. Repair type was noted. Urethral complications were defined as: urethral stricture, urethral diverticulum, and/or fistula. Bladder neck contractures were excluded. All patients had post-prostatectomy incontinence.

RESULTS: Urethral complications included 5 urethral strictures, 2 urethrocutaneous fistula, 2 urethral diverticulum, and 2 with both a fistula and diverticulum. Surgical management of the complication included a ventral onlay buccal mucosa graft in 5 patients, urethral diverticulum and fistula were excised and primarily repaired in multiple layers (one patient had buccal mucosa and a tunica vaginalis flap). Currently, 12 patients have had successful tertiary AUS cuff placement at a different urethral site, 5 patients are managed with a chronic catheter after AUS replacement and subsequent erosion required explants (5/19: 26% erosion rate), 1 patient with a history of radiation required cystectomy, and 3 patients declined further surgery. Repair technique revealed: 1 of 2 patients that had no repair of the urethra (erosion site only had a Foley catheter placed after AUS removal) developed a diverticulum, but no stricture; with mucosa-to-mucosa repair 5/9 patients developed urethral strictures, whereas capsule-to-capsule repair revealed no urethral strictures at follow up.

CONCLUSIONS: AUS erosion can result in complex urethral complications requiring surgical management. While the urethra can heal properly over a Foley catheter, capsule-to-capsule repair may lead to fewer urethral stricture rates than mucosa-to-mucosa repair. A larger study is needed on this subject, as there are essentially no published data currently.

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LONG-TERM DURABILITY OF THE DISTAL URETHRAL POLYPROPYLENE SLING PROCEDURE FOR STRESS URINARY INCONTINENCE: MINIMUM 10-YEAR FOLLOW-UP

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INTRODUCTION AND OBJECTIVES: We report on the long-term outcomes of the distal urethral polypropylene sling (DUPS) for stress urinary incontinence (SUI).

METHODS: We performed a prospective study of all consecutive patients who underwent a DUPS procedure between November of 1999 and April of 2000 for treatment of SUI. One and five year outcomes for this particular patient cohort have been previously reported. This cohort was followed prospectively and at a minimum of 10-yr follow-up, outcome was determined by patient self-assessment including validated symptom and bother questionnaires (Incontinence Symptom Score and Urogenital Distress Inventory).

RESULTS: There were 69 patients followed prospectively. Mean age at the time of surgery was 62 years (range 29-86). Mean age at follow-up was 73 years (range 40-97). At a minimum follow-up of 10 years, patient determined subjective success rate was 69%. Patients reported an overall mean improvement in symptoms of 63%, with 46% of patients reporting $>$90% improvement. This compared to a success rate of 88% and an overall mean improvement of symptoms of 81% at 5 years.

More than 10 years after surgery, 82% of patients reported SUI occurred never or less than once per week. 80% of patients reported never or slightly being bothered by SUI. This compared to 93% and 84% of patients who reported SUI occurred never or less than once per week, and 93% and 86% who reported never or slightly being bothered by SUI, at 5 years and 1 year, respectively.

Of patients age $<$48 years at the time of surgery, 100% were able to respond at the time of long-term follow-up, compared to 67% of patients age 49-74, and 40% of patients age $>$75. The remaining patients were unable to respond due to cognitive limitations or were deceased within the follow-up period.

CONCLUSIONS: The DUPS procedure has excellent long-term durability in treating patients with SUI, in addition to the low morbidity and low cost previously described. Ten years after their procedure the majority of patients report symptom improvement. Nevertheless, a significant number of older patients undergoing surgery for SUI are unable to follow up 10 years after surgery due to cognitive limitations or death. When choosing an anti-incontinence procedure, effectiveness and durability need to be considered in light of patient age given the theoretical advantages of long term durability are limited by cognitive decline and mortality.

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THE ELECTRONIC MODULAR ARTIFICIAL SPHINCTER ARTUS: USABILITY TESTS IN CADAVERS

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INTRODUCTION AND OBJECTIVES: The AMS 800 sphincter is considered to be gold standard in the treatment of severe stress incontinence. However the permanent pressure on the urethra can result in severe complications , i.e. tissue atrophy, urethral arrosion.A new electronic device which can compress successive parts of the urethra alternately can reduce these risks. Based on the animal studies we start the usability test in cadavers.

METHODS: In 6 cadavers (3 male, 3 female)with different BMI we implant the electronic modular system ARTUS. The cuffs were implanted by a perineal incision. The cuffs were located in the penobulbar in male and in the proximal urethra in female.The battery and control unit were implanted in the right lower abdomen, therefore it was