1604
PATIENT PERCEPTIONS REGARDING POST-PROSTATECTOMY INCONTINENCE (PPI) AND TREATMENT: AN ONLINE SURVEY

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INTRODUCTION AND OBJECTIVES: Incontinence rates vary widely in the literature following radical prostatectomy, depending on how incontinence is defined, patient versus physician reported rates, and whether subjective or objective measurement tools are used. Patient PPI concerns, perceptions, and knowledge of the treatment options are not well known. An online questionnaire was administered to evaluate these factors in patients who have undergone a prostatectomy.

METHODS: The survey was conducted in November 2007 in conjunction with Us TOO. Invitations were sent to 10,497 email addresses in the "Us TOO Prostate Cancer NEWS You Can Use" newsletter. 940 respondents agreed to participate of these 271 had urinary incontinence and continued. No incentive was given to the patients to participate.

RESULTS: 77% of patients were between 56 and 75. 80% of patients had their prostatectomy $>$ 1 year ago. 22% of men indicated that they did not know that incontinence was a complication of surgery. 65% indicated current PPI. 39% of patients state that PPI has a major impact on quality of life, 34% state it affected relationships and 50% state they would do anything to cure it. 74% of patients have discussed their condition with a MD, 70% of these were urologists. Only 29% of the time the physician initiated the discussion. 25% were familiar with the artificial urinary sphincter (AUS) and 19% viewed it favorably.

CONCLUSIONS: PPI continues to be a significant problem for patients. This online survey indicates the need for improved communication regarding PPI and its treatment with our patients. Online surveys can be effective and more time and cost effective than other survey methods.

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1605
ARGUS ADJUSTABLE BULBOURETHRAL MALE SLING – EXPERIENCE AFTER 94 CASES

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INTRODUCTION AND OBJECTIVES: We report our experience using an adjustable bulbourethral sling since April 2006 for male stress urinary incontinence (SUI) following prostatic surgery. Objective: To evaluate the safety, efficacy and quality of life in recipients of an adjustable bulbourethral sling (Argus® Promedon SA; Cordoba, Argentina).

METHODS: Between April 2005 and May 2009, 94 patients with moderate to severe stress urinary incontinence following prostatic surgery were implanted with the Argus® sling. The radio-opaque Argus® system comprises a thick silicon foam pad for soft bulbar urethral support. The pad is attached to the silicon columns that, after being passed with needles from the perineum to the abdominal wall, are adjusted with silicone washers to maintain the desired position. Most patients (84.8%) had previously undergone a variety of unsuccessful treatments for SUI prior to implantation with the Argus sling. 20 patients had undergone secondary irradiation therapy following surgery (17 after radical retropubic prostatectomy, 1 after radical perineal prostatectomy and 2 after TURP). All patients were evaluated pre and postoperatively with a 20 min pad tests, I-QoL questionnaires, cystoscopy and uroflowmetry. The study was designed in a retrospective longitudinal fashion.

RESULTS: Mean follow up was 2.4 years (range 0.2-4.5). Surgery time averaged 49 minutes (range 28-105). Adjustment was necessary in 39 cases (41.5%), either loosening (10/94; 10.6%) or tightening (29/94; 30.9%) at an average of 104 days (1-910 days) after the initial implantation. The sling had to be removed in 15/94 patients (16%) at an average of 397 days (range 20-1260) after surgery due to urethral erosion or infection. However 6 out of those 15 patients were within the first 22 patients representing the learning curve. After a mean follow up of 2.4 years, 79/94 (84%) patients were continent (0-1 protective pad). Both the 20 minute pad weight tests and I-QoL responses improved significantly compared to presentation at baseline ($p<0.001$).

CONCLUSIONS: We believe that the Argus® male bulbourethral sling system is an excellent first or second line treatment for moderate to severe male SUI, even for patients after repetitive unsuccessful preoperative surgery with other devices.

Source of Funding: None

1606
ADJUSTABLE CONTINENCE THERAPY (PROACT®) FOR MEN STRESS URINARY INCONTINENCE: LONG TERM RESULTS

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INTRODUCTION AND OBJECTIVES: Pro Adjustable continence therapy (ProACT®) is a mini-invasive therapy for the treatment of stress urinary incontinence following radical prostatectomy in men. The aim of this study is to evaluate the long term efficacy of this treatment.

METHODS: ProACT is a device made of two silicon balloons that are placed beside the anastomosis and that are connected through a tube to a titanium port that is placed in the scotum to facilitate volume adjustments. All patients enrolled in our study underwent a urodynamic exam to confirm the presence of intrinsic sphincteric insufficiency in the absence of detrusor overactivity. Efficacy of the treatment has been evaluated with daily pads count and with Ideal Quality of Life questionnaires (IQoL). Moreover patients impression has been evaluated using Visual Analogue Scale (VAS) and Patient Global Impression Index (PGI). Surgical details and complications have been noted down and, at every follow up visit, we reported balloons volume and the number of adjustments for each patient. Every subject also underwent a pre and post-operative measurement of mean urethral closure pressure.

RESULTS: Since December 2005 a total of 85 subjects underwent ProACT implantation in our Centre. Mean surgery time was 19 minutes (range 10-35), with less than 20 cc of blood loss. Mean follow-up time was 19.51 months (range 12-62) and all patients have been followed for at least 12 months after surgery. Daily pads count highlighted that after surgery a total of 55 patients (65%) were completely dry, with 17 patients (20%) improved. IQoL increased from 31,7 before ProACT implant, to 65 at last follow-up ($p<0,005$). Complications that required devices removal happened in 21 patients (24%). Reasons were urethral erosion (7/85, 8%), infection (3/85, 3,5%), balloon displacement (4/85, 4%) and device rupture (8/85, 9%). 12/21 (57%) patients who had complications received radiation therapy before the ProACT implant

CONCLUSIONS: ProACT is an effective minimally-invasive therapy for the treatment of stress urinary incontinence following radical prostatectomy at two-years of follow-up. Our results demonstrate a decrease in daily pads use and an increase in quality of life overtime. We consider this treatment as a first line approach for this cohort of patients.

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1607
A MULTICENTER STUDY ON THE SINGLE INCISION PERINEAL APPROACH FOR PLACEMENT OF AN ARTIFICIAL URINARY SPHINCTER APPEARS TO BE SAFE AND WITH BETTER PUMP PLACEMENT THAN THE TRADITIONAL TWO INCISION METHOD

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INTRODUCTION AND OBJECTIVES: The classic perineal approach for placement of an artificial urinary sphincter (AUS) requires 2

separate incisions: one for the cuff, and the other for the pump and reservoir placement. Now a second approach, through a single penoscrotal (also known as transscrotal approach) incision, for AUS placement exists that is advocated to be faster and easier than the traditional method. A recently published paper shows that when the AUS cuff is placed through a perineal approach there appears to be a higher completely dry rate and fewer subsequent tandem cuff additions than when the AUS cuff is placed through a penoscrotal incision (J Urol. 179, 1475-1479: 2008). That paper and subsequent accepted debating letters to the editor of the Journal of Urology describe and advocate for demonstration of the single incision perineal approach of AUS placement. Therefore a multicenter study and video demonstrating the method were performed.

METHODS: We reviewed the charts of 47 patients at three centers who underwent these procedures from 11/2006 till 7/2008. The entire AUS device was placed thru a single perineal incision with pressure regulating balloon (PRB) placement done similarly to "blind" reservoir placement of a penoscrotal IPP placement. This is accomplished by simply reaching up from the perineal incision with the patient in deep reverse Trendelenburg, which tilts the pelvis towards the surgeon allowing easier access to the retropubic space. If unable to obtain adequate retropubic position of the PRB, a small counter incision was made in the groin similar to the traditional counter incision. In this single perineal incision approach, the pump is placed in a sub-dartos pouch in the scrotum from below, the exact opposite of transscrotal pump placement, with a purse string suture to secure it in place.

RESULTS: 2 (4%) of the 47 patients had erosion / infection with no mechanical failures or revisions for other reasons. With the direct vision sub-dartos pouch method of pump placement; there is no issue with pump migration / high riding pump position in any of the patients. In five cases, the surgeon was unable to achieve satisfactory retropubic PRB placement and a counter incision was used to place the PRB, but not the pump.

CONCLUSIONS: The single incision perineal approach for placement of an artificial urinary sphincter appears to be safe and with better pump position than with the traditional two incision method.

Source of Funding: None

1608

DECOMPENSATION OF AMS 800 RESERVOIR ELASTICITY AS A MECHANISM FOR GRADUAL ARTIFICIAL URETHRAL SPHINCTER FAILURE: A CASE SERIES DEMONSTRATING NOVEL EVALUATION AND TREATMENT WITH RESERVOIR REPLACEMENT ALONE

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INTRODUCTION AND OBJECTIVES: Progressive deterioration of urinary continence after artificial urethral sphincter implantation occurs in 3 to 9% of patients. The most common etiology is believed to be urethral atrophy with recommended treatment including replacement or doubling of the urethral cuff with or without replacement of other components. We have identified a previously unrecognized mechanism: reduced reservoir elasticity.

METHODS: Nine patients operated on by a single surgeon were noted to have mechanical failure of the artificial sphincter reservoir. All patients described a gradual reduction of continence with increasing need for absorbent protection. Pre-operative cystoscopy excluded erosion; plain x-rays showed contrast in the system. At re-exploration, mechanical failure was investigated using standard arterial catheter pressure sensors provided with anesthesia machines. If pressure readings below manufacturer's specifications were noted, the reservoir alone was replaced; the perineum and cuff were left intact. Reservoirs were returned to the manufacturer for evaluation. Patient outcomes were self-reported to the surgeon.

RESULTS: Median age at initial artificial sphincter implantation was 61 yrs (52 - 75); average time to revision was eight yrs (3 to 13). At initial implantation, all patients received 4.5 cm cuffs; all but one had 61-70 cmH2O reservoirs, and one had a 71-80 cmH2O reservoir. The mean reservoir pressure in situ at re-exploration was 36 mmHg (27 – 41mmHg). Converted to cmH2O, the pressures were 50.4 cmH2O (37.8-57.4). The mean volume was 27 cm^3 (25 - 30) which is higher than the standard volume of 20 cm^3. In each case, the reservoir pressure was less than the nominal pressure range. Evaluation by the manufacturer revealed appearance and behavior consistent with the duration of implant. In all patients the artificial sphincter reservoir was replaced through the initial inguinal incision. All patients had complete restoration of urinary continence; one patient eventually required cuff revision due to subsequent erosion.

CONCLUSIONS: In the subset of patients with gradual and progressive incontinence following artificial sphincter implantation, reduced reservoir pressure can be investigated and confirmed intraoperatively. If abnormal, the reservoir can be replaced through a very limited operation, restoring urinary control without replacement or revision of the urethral cuff.

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Urodynamics/Incontinence/Female Urology: Urodynamic Testing

Moderated Poster 48

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1609

IDENTIFYING ICS BLADDER SENSATIONS USING FUNCTIONAL BRAIN IMAGING (FMRI) AND CONVENTIONAL URODYNAMICS IN HEALTHY SUBJECTS AND OAB PATIENTS

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INTRODUCTION AND OBJECTIVES: The International Continence Society (ICS) has recognised 3 distinct sensations during bladder filling: first sensation of filling (FSF), first desire to void (FDV) and strong desire to void (SDV). No previous study has attempted to correlate these sensations with simultaneous urodynamics and fMRI brain scanning. Our objectives were to identify brain regions correlating with FSF and SDV, measure their respective BOLD (Blood Oxygen Level Dependent) signal changes and determine differences in activity in these regions between healthy volunteers (HV) and overactive bladder (OAB) patients.

METHODS: fMRI scans wee performed with conventional urodynamics using a previously developed block paradigm of an infusion: pause sequence. Bladder sensation was rated according to ICS sensations (0=No sensation, 1=FSF, 2=FDV, 3=NDV, 4=SDV & 5=Maximum sensation). After image acquisition and pre-processing, BOLD signal changes were calculated in those brain regions which showed significant differences during bladder filling.

RESULTS: 11 HV (mean age 40 years) and 13 OAB subjects (mean age 54 years) completed the study. OAB subjects tolerated a smaller infusion volume ($p=0.019$) and experienced stronger sensations (SDV, $p=<0.0001$ and MCC, $p=<0.0001$) at lower bladder volumes than HVs. The pattern of bladder sensation from FSF to SDV (Figs 1 & 2 and Table 1) was different for HVs and OAB subjects. HVs showed greater BOLD signal changes at SDV compared to OAB in the frontal orbital cortex. In regions known to be associated with unpleasantness (insular cortex and anterior cingulate cortex, ACC), 'fear' (amygdala) and anticipation (hippocampus), signal changes were greater for OAB at FSF.

CONCLUSIONS: We have developed a novel method for correlating brain activation during fMRI with ICS sensations and urodynamic bladder assessment. HVs showed greater BOLD signal changes at SDV compared to OAB in the frontal orbital cortex. Signal changes were greater for OAB patients at FSF in brain regions known to be