

## THE RATE OF DE NOVO STRESS URINARY INCONTINENCE IN A LARGE COHORT AFTER ROBOTIC ASSISTED PROLAPSE REPAIR

### Hypothesis / aims of study

The role of anti-incontinence surgery at the time of pelvic organ prolapse (POP) repair is controversial. The current literature focuses on stress urinary incontinence (SUI) after transvaginal native tissue repair or open mesh sacrocolpopexy, showing rates of de novo stress urinary incontinence (dSUI) lower after anti-incontinence surgery, even in the asymptomatic woman, but with higher adverse events and prolonged catheterization<sup>1</sup>. We aim to study the clinically relevant rate of dSUI in a large cohort of women undergoing robotic assisted prolapse repair (RAPS).

### Study design, materials and methods

A pelvic organ prolapse database has been maintained at our institution since 2006. We performed a retrospective review of this database to identify all women who underwent robotic assisted laparoscopic prolapse repair by one of three fellowship-trained urologists. These were divided into two cohorts: women who underwent a mid-urethral sling (MUS) at the time of RAPS and those who did not. Determination was based on presence of SUI at baseline, either by history or demonstrated on reduction preoperative urodynamics. Presence of SUI after RAPS was determined by chart review. Patient demographics, history, operative, and peri-operative outcomes regarding need for retreatment were compared between the two groups. Descriptive statistics, Pearson's chi-square test, and Fisher's exact tests were used for statistical analysis.

### Results

Between 2006 and 2014, 196 women were identified in the database who met inclusion criteria, with a mean follow up of 13.6 months. There were 91 women who had SUI at baseline and underwent anti-incontinence surgery (SUITx+), and 105 who did not have SUI and underwent RAPS only (SUITx-). Of the 91, 79 underwent transobturator sling, 3 retropubic sling, 7 robotic laparoscopic Burch, and 2 bulking agent injections. In the SUITx- cohort, 24/101 (24%) reported either dSUI (22) or worsening of clinically minimal SUI (2). In the SUITx+ group 4/89 (4.5%) had persistent SUI, 1/89 (1.3%) had worsening SUI. 9/105 (8.6%) who had dSUI went on to a secondary procedure, an MUS in 7 and bulking agent injection in 2. In the 82 women that had a MUS at time of RALS or as a secondary procedure, sling specific complications occurred in 2 – 1 women with obstructed voiding requiring revision, and 1 with vaginal mesh exposure managed with topical estrogen. In total, 7/89 (9%) had a negative outcome after MUS, including persistent or worse SUI, or complication. Data on outcome was missing in 4 of the SUITx- and 2 of the SUITx+.

### Interpretation of results

There was a higher rate of dSUI (24%) in the SUITx- cohort than negative outcome (9%) in the SUITx+ cohort. However, dSUI led to further clinical intervention in only about 1/3 of these patients (8.6%).

### Concluding message

The algorithm to manage patients with MUS or other anti-incontinence procedure at time of RAPS results in similar outcomes between the two groups and may minimize unnecessary procedures. Further analysis may help optimize this decision process and outcomes.

### References

1. van der Ploeg J et al. Prolapse surgery with or without stress incontinence surgery for pelvic organ prolapse: a systematic review and meta-analysis of randomised trials. BJOG 2014;121:537–547.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** William Beaumont Hospital Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes