

EFFECT OF PREOPERATIVE VOIDING DETRUSOR PRESSURES ON THE TREATMENT OUTCOMES IN WOMEN WITH MID-URETHRAL SLING OPERATION: 7 YEAR-FOLLOW UP

Hypothesis / aims of study

Several studies suggest that voiding detrusor pressures during preoperative urodynamic evaluation predict treatment outcomes. With the longer follow-up data of women undergoing mid-urethral sling operation, we aimed to determine whether preoperative voiding detrusor pressures could affect the postoperative outcomes.

Study design, materials and methods

We retrospectively assessed the clinical data of women who received mid-urethral sling operation for stress urinary incontinence and were followed-up for at least more than 5 years. After excluding women with neurogenic abnormalities that affect bladder function, pelvic organ prolapse grade ≥ 3 , and who received tension-adjustment mid-urethral sling, 162 women were enrolled in the analyses. Preoperative voiding detrusor pressures were assessed; opening detrusor pressure (Pdet,open), detrusor pressure at maximal flow (PdetQmax), and closing detrusor pressure (Pdet,clos). Treatment success was defined as 'cured' (absence of subjective complaint of leakage and absence of objective leakage on the stress test) or 'improved' (rare leakage subjectively, but satisfaction regardless of the stress test) through the patient interview and the stress test by a physician or medically qualified research assistant. All other outcomes and use of any treatment for postoperative incontinence were considered as failures. Preoperative voiding detrusor pressures were compared between women with and without treatment success using independent sample T tests.

Results

The mean age at surgery was 54.5 years and mean duration of follow-up was 82.3 months. The mean amount of 1-hr pad test was 37.6 (± 42.7)g and mean VLPP value was 83.1 (± 28.5) cmH₂O. Forty-eight (29.6%) women received surgery via the retropubic approach and 114 (70.4%) did via the transobturator approach. The mean values (cmH₂O) for Pdet,open, PdetQmax, and Pdet,clos were 16.2 (± 9.8), 24.1 (± 11.2), and 17.5 (± 10.2). During follow-up, treatment success including 'cured' and 'improved' was determined in 141 (87.0%) women and 21 (13.0%) women were classified as treatment failure. There were no statistically significant differences in all of preoperative voiding detrusor pressures between women with and without treatment success. However, women with de novo urgency/urgency incontinence post-operatively showed significantly higher level of Pdet,open in pre-operative evaluation ($p=0.037$).

Interpretation of results

Based on our findings, none of preoperative voiding detrusor pressures affected the treatment outcomes in women with mid-urethral sling operation. While, women with de novo urgency/urgency incontinence had significantly higher Pdet,open in pre-operative evaluation. Further studies for the clinical interpretation on these findings may be warranted.

Concluding message

From the mean follow-up of 7 years, we demonstrated that any of preoperative voiding detrusor pressures did not affect the treatment outcomes in women with mid-urethral sling operation.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** IRB of Seoul National University Bundang Hospital **Helsinki:** Yes **Informed Consent:** No