

ARE PREDICTIVE FACTORS FOR PERSISTENT INCONTINENCE AFTER MID-URETHRAL SLING OPERATION DIFFERENT IN BETWEEN PURE STRESS AND MIXED INCONTINENCE?

Hypothesis / aims of study

There have been a few previous studies trying to determine predictive factors for persistent incontinence after mid-urethral sling operation in stress urinary incontinence. Nowadays, the efforts have been made to elucidate whether preoperative urodynamic factors will predict the failure of mid-urethral sling operation in mixed incontinence. We evaluated and compared the risk factors for recurrence after mid-urethral sling operation in between pure stress and mixed incontinence.

Study design, materials and methods

Two hundred and thirty-four women were categorized into the pure stress incontinence (Group A, 163 patients) and mixed incontinence (Group B, 65 patients) groups. All patients were followed for more than 3 months. Preoperative evaluation including symptom questionnaire, physical examination and urodynamic study were performed. Patients received the retropubic (17.7%) or trans-obturator (82.3%) mid-urethral sling operations. The univariate and multivariate logistic regression analysis was used to identify the predictive factors for persistent incontinence after operation in both group.

Results

Follow-up duration for Group A and B was 18.8 months (3-52) and 19.2 months (3-54), respectively. The demographic characteristics different in both group were body mass index (Group A 24.4 +-3.0, Group B 25.3 +- 2.5), presence of cystocele (55.7%, 38.8%) and severity of symptoms. The MUCP, VLPP, Q-tip and pad test were not significantly different in both group. The success rate in Group A (95.7%) was higher than that in Group B (84.6%) (p=0.015, Pearson Chi-Square test). In Group A, VLPP, PdetQmax and the weight of pad test were identified to be risk factors for failure of operation in univariate analysis, but, only weight of pad test was independent risk factor in multivariate analysis (OR 3.54 95% CI 1.204 – 8.895, p=0.045). In Group B, menopause, IPSS-QoL score, maximal cystometric capacity and involuntary detrusor contraction were the risk factor in univariate analysis, but maximal cystometric capacity (OR 5.587 95% CI 1.912 – 12.435, p=0.032) and involuntary detrusor contraction (OR 2.327 95% CI 1.014 – 3.309, p=0.044) were independent risk factors in multivariate analysis.

Interpretation of results

The success rate of mid-urethral sling operation in pure stress urinary incontinence was higher than that in mixed incontinence. Unlike in pure stress urinary incontinence, Weight of pad test was not significant to predict the failure of operation in mixed incontinence. Meanwhile, maximal cystometric capacity and involuntary detrusor contraction were important to predict the failure of operation.

Concluding message

The predictive factors for persistent incontinence after mid-urethral sling operation are different in between pure stress and mixed incontinence. In mixed incontinence, maximal cystometric capacity and involuntary detrusor contraction are independent predictors for failure of mid-urethral sling operations.

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| <i>Is this study registered in a public clinical trials registry?</i> | No |
| <i>What were the subjects in the study?</i> | HUMAN |
| <i>Was this study approved by an ethics committee?</i> | Yes |
| <i>Specify Name of Ethics Committee</i> | The Internal Review Board of the Seoul National University Bundang Hospital |
| <i>Was the Declaration of Helsinki followed?</i> | Yes |
| <i>Was informed consent obtained from the patients?</i> | Yes |