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Author(s):

**Hann-Chorng Kuo**Institution  
City  
Country**Department of Urology****Buddhist Tzu Chi General Hospital**Title (type in  
CAPITAL  
LETTERS)**Videourodynamic Results after Pubovaginal Sling Procedure for Stress Urinary Incontinence****ABSTRACT**

**Objectives:** Videourodynamic study was performed in 24 female patients with type II, type III, and mixed type II and III stress urinary incontinence (SUI) before and after pubovaginal sling procedure in order to determine the influence of surgery on bladder and urethral function.

**Methods:** A total of 14 women with type II SUI, 7 with type III SUI and 3 with mixed type II and III SUI were included in the study. Of the 14 women with type II SUI, 2 had previous failed vaginal surgery for SUI and 4 had previous abdominal total hysterectomy. Among the 7 women with type III SUI, 3 had had previous radical hysterectomy for cervical cancer, 2 had previous abdominal total hysterectomy, and 2 had a previous failed bladder neck suspension. The pubovaginal sling procedure was carried out by one surgeon using a modified method that minimized interference with the endopelvic fascia and the bladder base. Videourodynamic study was performed before the pubovaginal sling procedure, within 7 to 14 days postoperatively, and at 3 - 6 months postoperatively.

**Results:** Videourodynamic study within 7 to 14 days postoperatively revealed no change in the mean voiding detrusor pressure (Pdet), cystometric capacity and maximal flow rate (Qmax) as compared to the preoperative data. However, 11 patients had a lower Qmax and 5 had a higher Pdet. The bladder neck opening time and residual urine amount were significantly increased. Within 3 to 6 months after surgery, Pdet, Qmax, bladder neck opening time, and residual urine amount returned to preoperative levels. Mild hypermobility of the bladder neck was noted in only 2 patients whereas no urethral incompetence was noted in any of the patients while coughing. A reflexic elevation of the bladder neck was noted on coughs in 7 patients. All but 1 of the patients were dry day and night (96%). After surgery, detrusor instability (DI) was absent in 3 patients (12.5%) who had preoperative DI, whereas *de novo* DI was noted in 2 (8.3%) patients who complained only of urgency without incontinence. No infection nor sling failure was noted at a mean follow-up time of 12 months. The high success rate of continence and low morbidity in this series suggest that this modified pubovaginal sling procedure is an effective method for the treatment of type II or type III SUI.

**Conclusions:** The pubovaginal sling procedure is effective in the treatment of either type II or type III SUI. The postoperative videourodynamic results in this study show that the pubovaginal sling procedure can re-establish a "hammock effect" on the proximal urethra during abdominal straining without compromising urethral resistance during the voiding phase.