## A surgical technique to adjust bladder neck suspension in laparoscopic Burch colposuspension

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## **Abstract**

STUDY OBJECTIVE: To evaluate the anatomic and functional efficacy of a surgical technique designed to prevent overcorrection of the bladder neck in laparoscopic Burch colposuspension for primary urodynamic stress incontinence. DESIGN: Prospective, observational study (Canadian Task Force classification II-2). SETTING: Medical center, Taipei, Taiwan. PATIENTS: One hundred fifty-five consecutive women, aged 33 to 71 years, undergoing laparoscopic Burch colposuspension for primary (not previously operated on) urodynamic stress incontinence were prospectively assessed over a 6-year period. INTERVENTIONS: A bladder neck suspension technique, derived from serial perioperative ultrasound examinations for open Burch colposuspension, was incorporated into laparoscopic Burch procedure. MEASUREMENTS AND MAIN RESULTS: The outcome measures included duration of postoperative voiding trials, morphologic changes on ultrasound scanning within 1 month of operation, postoperative continence rate, persistent or de novo urge symptoms or detrusor overactivity, and therapeutic satisfaction for laparoscopic Burch colposuspension. At 1-year follow-up, the objective cure rate was 94.8% (110/116), subjective cure rate was 95.7% (111/116), and overall therapeutic satisfaction was 92.2% (107/116). Kaplan-Meier analysis revealed the cumulative rates for subjective cure of stress incontinence and freedom from urge symptoms at 1, 3, and 5 years were 95.7%, 90.7%, and 76.5%, and 92.7%, 90.4%, and 90.4%, respectively. Four women (2.6%) had prolonged voiding trials greater than 1 week. Urge symptoms occurred in 12 women (7.7%), and de novo detrusor overactivity occurred in 6 (3.9%). Demographic factors, concomitant surgical procedures, and perioperative morphologic variables did not correlate with prolonged voiding trials or postoperative urge symptoms. CONCLUSIONS: Our standardized surgical technique may help to avoid overelevation and associated postoperative complications without compromising the success of laparoscopic colposuspension for primary urodynamic stress incontinence.