

# **Dynamic morphologic changes in the anterior vaginal wall before and after laparoscopic Burch colposuspension in primary urodynamic stress incontinence**

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摘要

## **Abstract**

**OBJECTIVE:** To evaluate dynamic morphological changes in the anterior vaginal wall in primary urodynamic stress incontinence before and after laparoscopic Burch colposuspension and to explore the related effects on urethral and voiding functions. **METHODS:** Ultrasound cystourethrography and urodynamic study were performed in 112 patients with primary urodynamic stress incontinence before and 3 months after laparoscopic Burch colposuspension. Ultrasound assessment included measurement of the bladderneck positions at rest and during straining, the bladder wall thickness at the dome and trigone, and observation of the motion of the bladder neck in addition to the development of cystocele on Valsalva maneuver. On ultrasonography, a cystocele was defined as prolapse or descent of the bladder base below the bladder neck at rest, on Valsalva, or both. **RESULTS:** After laparoscopic Burch colposuspension, ultrasound cystourethrography revealed significant differences in the bladder neck position at rest and during stress (preoperative median 93 degrees vs. postoperative 70 degrees at rest and preoperative 160 degrees vs. postoperative 81 degrees during stress,  $P < 0.001$ , respectively) and rotational angle (preoperative median 58 degrees vs. postoperative 10 degrees,  $P < 0.001$ ). A laparoscopic Burch operation corrected 50% (5/10) of the preoperative cystoceles. However, a residual cystocele developed postoperatively in 29% (30/102) of the women who did not have one previously. Postoperative ultrasonographic and urodynamic studies did not reveal any differences between those women with or without postoperative cystocele except for the residual urine volume, detrusor opening pressure, and straining and rotational angles of the bladderneck ( $P < 0.001$ , 0.032, 0.010 and  $< 0.001$ ,

respectively). CONCLUSIONS: Laparoscopic Burch colposuspension may correct a pre-existing cystocele, but in other patients a cystocele may persist or be disclosed. After laparoscopic Burch operation a persistent cystocele is not associated with urethral compression or voiding impairment.

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