

Male Suburethral Sling for Stress Urinary Incontinence

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Stress urinary incontinence (SUI) is a complication encountered after transurethral prostatectomy, radical prostatectomy and complicated urethral rupture. A patient with urethral sphincter deficiency has severe SUI and has to wear an external appliance for urine collection. The quality of life is poor for these patients. These are also common sequelae in patients with meningomyelocele or spinal dysraphism. The surgical procedure for male SUI includes periurethral injection of bulking agents, artificial sphincter or suburethral sling procedure. The former two procedures are commonly applied worldwide but the latter one is newly developed. Recent reports using autologous aponeurosis and a bone fixation technique [1] or synthetic material as a sling [2] have achieved satisfactory results without adverse effect. The suburethral sling technique is based on the innovative anti-incontinence procedure described by Kaufman [3].

Before surgery, cystoscopy is necessary to exclude urethral stricture. Urodynamic pressure flow study is optional to confirm the presence of urethral sphincter deficiency and investigate detrusor contractility. During surgery, the patient is placed in an extended lithotomy position under general or spinal anesthesia. A 20 Fr Foley catheter is inserted for better identification of the bulbous urethra and to ensure incomplete occlusion of the urethra by the suburethral sling. Through a midline or lumda shape perineal incision, the bulbocavernosus muscle is identified and the ischiopubic ramus is dissected bilaterally until the periosteum is identified. After meticulous hemostasis, a 2 cm wide polypropylene sling is sutured directly to the periosteum and firmly compresses the bulbous urethra (Fig. 1). If the 2 cm wide sling cannot achieve adequate compression, a second sling should be placed distally to ensure the whole segment of the bulbous urethra

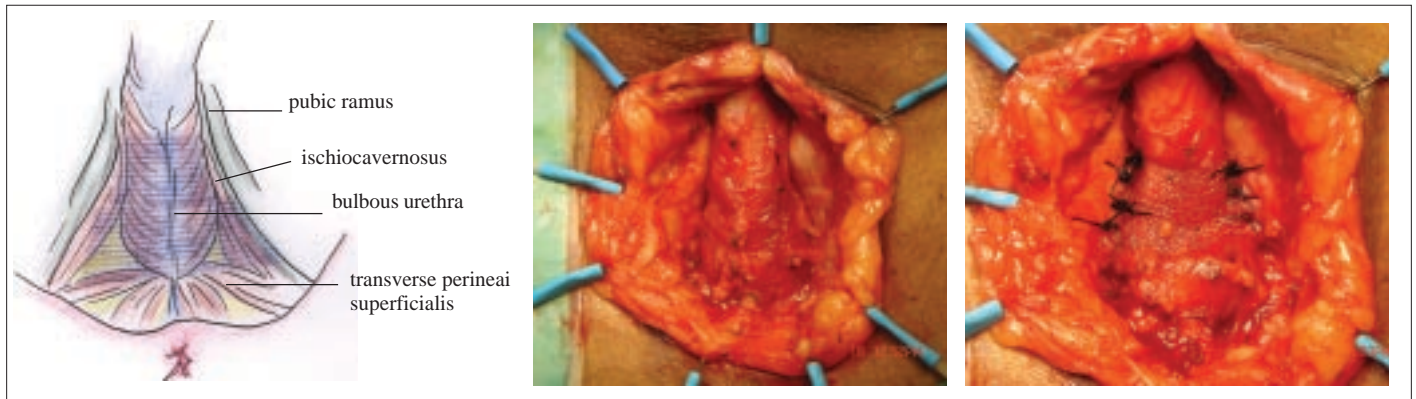


Fig. 1. After meticulous hemostasis, a 2 cm wide polypropylene sling is sutured directly to the periosteum and firmly compresses the bulbous urethra.

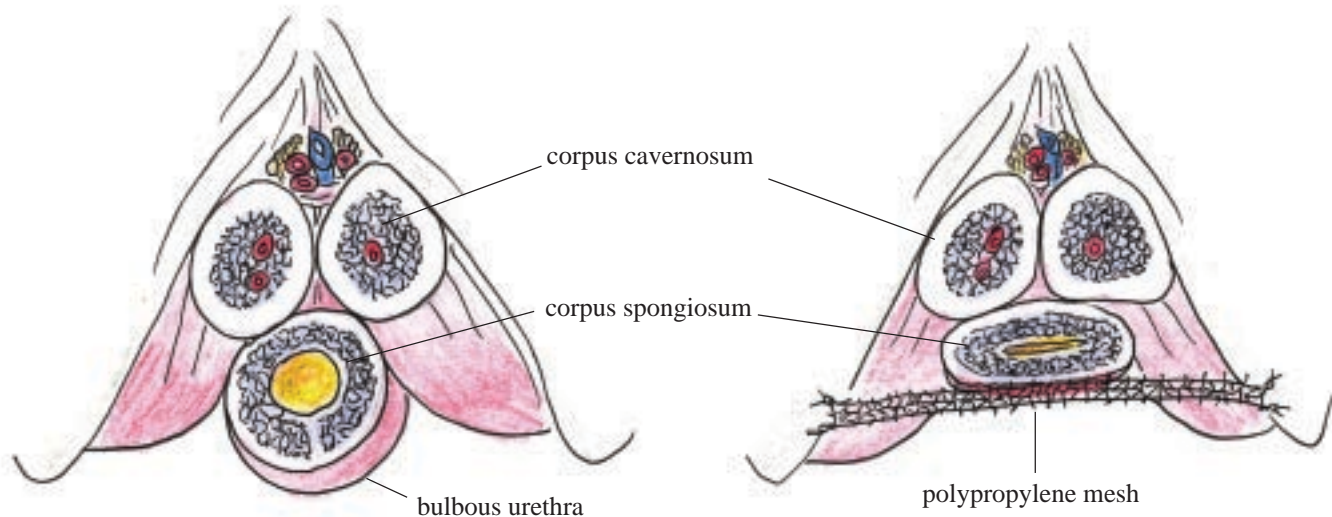


Fig. 2. If the 2 cm wide sling cannot achieve adequate compression, a second sling should be placed distally to ensure the whole segment of the bulbous urethra is adequately compressed.

is adequately compressed (Fig. 2). The sling is soaked in gentamicin solution (80 mg in 10 mL) and the wound is spread with the gentamicin solution thoroughly. Then the wound is closed in layers without placing a drainage tube.

The success rate of male suburethral sling is reported to be excellent in 76% of patients and improved in 14% [2]. The result is much better in patients having SUI due to previous transurethral or radical prostatectomy regardless of irradiation. Patients with normal detrusor contractility usually can void smoothly without using abdominal pressure. However, for patients with detrusor underactivity, mild bladder outlet obstruction might occur after heavy compression of the urethra by the sling. We have performed 5 such surgeries for patients with SUI due to radical prostatectomy (n=4) and spinal dysraphism (n=1). Three radical prostatectomy patients were cured but the treatment failed in the other two. Inadequate compression of the urethra is the likely cause of the failed treatments. Nevertheless, this simple technique has a success rate similar to that of artificial sphincter and deserves further application in men with postoperative SUI.

REFERENCES

1. Rios LA, Tonin RT, Panhoca R, De Souza OE, Filho LL, Mattos D Jr: Male perineal sling with autologous aponeurosis and bone fixation-description of a technical modification. *Int Braz J Urol* 2003; **29**: 524-527.
2. Comiter CV: The male sling for stress urinary incontinence: A prospective study. *J Urol* 2002; **167**:597-601.
3. Kaufman JJ: A new operation for male incontinence. *Surg Gynecol Obstet* 1970; **131**:295-299.

TUGA "Pelvic Reconstructive Surgery" Live Demonstration & Hands-on Training Workshop		
時間：2007年3月18日(星期日)		
地點：台北馬偕醫院福音樓九樓第一講堂		
地址：台北市中山北路二段92號		
07:30-07:55	Registration	
07:55-08:00	Opening remarks	蘇聰賢
Moderator	余堅忍 / 陳宏輝	
08:00-10:00	Case presentation & live surgery demonstration	蘇聰賢 / 王有利 / 林姿吟
10:00-10:30	Q&A	
10:30-11:00	Coffee Break	
Moderator	陳進典 / 楊振銘	
11:00-11:50	Debate - Vaginal surgery for POP To mesh Not to mesh	林姿吟 黃文貞
11:50-12:00	Q&A	
12:00-13:30	Lunch	
Moderator	洪滿榮	
13:30-14:30	Small groups, hands-on training (30min-30min) 1. Pelvic Anatomy & POP-Q 2. TVT & TVT-O	黃寬慧 & colleague 盧佳序 & colleague
14:45-15:45	Small groups, hands-on training (30min-30min) 3. Gynemesh & Gynecare Prolift System 4. Cystoscopy: Diagnosis and Management	余堅忍 & colleague 王炯理 & colleague
15:45-15:50	Closing remark	
		蘇聰賢
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