

## **CHOICES OF SURGICAL APPROACH FOR MANAGEMENT OF URINARY OUTLET OBSTRUCTION IN FEMALES**

### **Hypothesis / aims of study**

Urinary outlet obstruction is a potential complication of all surgical procedures for treatment of stress urinary incontinence. With more slings being performed, this complication has become more prevalent (1). Management of post sling obstructive complication can be a challenge, as different surgical approaches ranging from simple incision to formal urethrolisis and graft interposition can be used (2,3). The aim of this study is to report the experience of our institution in managing the obstructive complication after sling procedures

### **Study design, materials and methods**

Fifteen female patients with mean age 59.6 years were referred to our institution for evaluation and treatment after suburethral sling procedures, between July 2001 and August 2002. They presented with lower urinary tract symptoms within 3 months to 6 years from the most recent sling procedure. The evaluation included complete history, physical examination, and fluorourodynamics (FUDS). The symptoms were frequency (93%), urgency (93%), retention and increased residual volume (80%), dysuria or pain (67%), urge incontinence (53%), stress incontinence (27%) and recurrent urinary tract infections (27%). Seventy four per cent had multiple anti-incontinent procedures. Physical examination revealed that 27% of the patients had hyper-suspended urethra and the sling was palpable in 13%. Fifty three per cent showed moderate to severe scarring and 13% had severe fibrosis with retro pubic adhesions. Q-tip test was negative in 80%. Pre- operative FUDS revealed detrusor instability in (13%), low bladder compliance (13%), Q max lower than 12 ml/second (62%) and high voiding detrusor pressure (33%). Each patient was managed differently as follows: sling incision for patient who had only a sling procedure within 3-6 months, urethrolisis for patient with previous multiple anti-incontinent surgeries and Martius graft in addition to urethrolisis if extensive scar formation was found. Supra-meatal urethrolisis was used in patients with retro pubic scar formation.

### **Results**

Sling incision was performed in 4 patients, urethrolisis and sling revision in 7, urethrolisis with vaginal wall interposition in 2 and supra meatal urethrolisis and Martius graft in 2. On 12 months follow up, 93% of the patients cured or improved, 53% of them their symptoms have been resolved and 40% improved. One patient had no beneficial effect after the sling revision. Twenty seven per cent had persistent irritative symptoms. Twenty percent reported stress urinary incontinence and they received collagen injections.

### **Interpretation of results**

Irritative symptoms were more frequent and refractory to treat than obstructive symptoms. High rates of improvement in patients' symptoms are obtained by using different approaches ranging from simple and less morbid sling incision in non-recurrent recently diagnosed obstruction to urethrolisis and flap in recurrent cases.

### **Concluding message**

Managing obstructive sling is not uniform and it requires good pre-operative evaluation. While simple incision can be performed successfully in the case of newly performed sling, more extensive procedures are required in patients with marked scarring and adhesions. Urgency symptoms may persist, even after successful resolution of obstruction

### **References**

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- 2- Simplified surgical approach to bladder outlet obstruction following pubovaginal sling. J Urol. 1995; 154:181-183
- 3- Urethrolysis with Martius labial fat pad graft for iatrogenic bladder outlet obstruction. Urology 2003; 61(4) Supp 1:21-25