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## **ANTERIOR INTRAVAGINAL SLINGPLASTY (IVS) FOR THE TREATMENT OF STRESS URINARY INCONTINENCE**

### Hypothesis / aims of study

Our aim was to report results of the anterior intravaginal slingplasty (IVS) as a primary surgical treatment for stress urinary incontinence.

### Study design, materials and methods

From February 2003 to October 2004, a total of 60 consecutive patients with urodynamically-demonstrated stress urinary incontinence (USI) who underwent anterior IVS with concomitant pelvic reconstructive surgery were retrospectively reviewed. The modified anterior IVS was performed with mesh placement at the bladder neck and tensioning to a 45 degree from the horizontal plane positioning. Patients were evaluated preoperatively with urogynecological history, physical examination, voiding diary, post-void residual urine (PVR), and multichannel urodynamics. Multichannel urodynamic studies with leak point pressures and urethral pressure profiles were used to classify the type of incontinence. Treatment outcomes measured include continence status, postoperative voiding dysfunction, urgency/urge incontinence, and operative complications.

### Results

Mean follow-up was 9.2 months. 47 (78%) had intrinsic sphincter deficiency (ISD) and 13 (22%) had urethral hypermobility. 51 (85%) were cured and an additional 3 markedly improved. Of the ISD patients, 37 (79%) were completely cured and an additional 3 markedly improved. Preoperative urge incontinence resolved in 14 of 23 patients (61%), while de novo urge incontinence developed in 3 of 37 patients (8%) with USI only preoperatively. Prolonged postoperative urinary retention (more than 30 days) was present in 5%. All subsequently voided spontaneously without requiring transection of the mesh. Complications included one bladder perforation, one retropubic hematoma, and one recurrent UTI. No tape related healing problems were noted.

### Interpretation of results

Severe stress incontinence (ISD) is difficult to treat. The anterior IVS sling, placed at the bladder neck under mild tensioning, resulted in a high cure rate with minimal voiding dysfunction.

### Concluding message

Anterior IVS is an effective treatment for all types of stress urinary incontinence with low complication and postoperative voiding dysfunction rates.

