

## **TVT AND PROLAPSE REPAIR FOR TREATMENT OF OCCULT STRESS URINARY INCONTINENCE: A RANDOMIZED STUDY**

### **Aims of Study**

Women with severe genital prolapse may also have clinical stress urinary incontinence (SUI), but more often they are subjectively continent because of urethral kinking or compression. Some authors have suggested that a suspending urethropexy could be selected in patients who have potential stress incontinence demonstrated by barrier reduction of the prolapse preoperatively [1]. Our aim was to compare outcomes after prolapse surgery that included TVT procedure with those operations that did not.

### **Methods**

Between January 2000 and May 2001, 50 patients with bladder neck hypermobility and severe pelvic organ prolapse, were enrolled in the study. Exclusion criteria were : age > 75 years, obesity (BMI > 30), diabetes, previous pelvic and anti-incontinence surgery, symptoms of stress urinary incontinence and bladder instability. Preoperatively each subject underwent a standardized urogynecologic interview, a complete physical examination and a urodynamic evaluation. The latter included simple uroflowmetry, provocative cystometry, and urethral pressure profilometry. The cough and Valsalva provocation tests were performed in supine position, at bladder volume of 150 and 300 ml, before and after utero-vaginal prolapse had been reduced with a posterior blade of a Sim's speculum. Patients who demonstrated urinary leakages only when the prolapse had been re-positioned were randomised to two different surgical procedures. They underwent either a TVT procedure (n=25) as described by Ulmsten [2] or a plication of the urethrovesical junction endopelvic fascia (n=25) as described by Hurt [3]. These two anti-incontinence procedures were assigned randomly within blocks of four. The associated pelvic floor defects had to be repaired by senior authors using a standardized vaginal reconstructive technique that included hysterectomy, Mc Call culdoplasty, cystocele and rectocele repair, with the exclusion of sacrospinous ligament fixation. All patients were informed about the study and procedures and gave their informed consent. Follow-up visits were scheduled every 6 months after surgery.

### **Results**

Study subjects had a mean age of  $65 \pm 8$  (range 46-75) years, BMI of 25, and vaginal parity of  $2.2 \pm 0.8$  (range 1-5). There were no significant differences between the two surgical groups with respect to any of these parameters. No difference was seen in the severity of genital prolapse between the two groups. The mean follow-up time was 18 months (median 19 months). A successful repair of pelvic floor defects was observed in 47 patients (94%). One subject that received TVT and 9 patients who had fascia plication referred post-operatively symptoms of stress urinary incontinence. Objectively 2 patients (2%) in the TVT group and 11 subjects (44%) who underwent endopelvic fascia plication showed urinary leakages while performing the cough provocation test ( $p = .004$ ). One subject in the TVT group had a retropubic hematoma that required an additional surgery. Spontaneous voiding was observed after an average of 2.5 days (range 2-11). Two subjects (one for each group) had post-operative urinary retention that resolved spontaneously after 8 and 11 days respectively.

### **Conclusions**

The fact that genital prolapse may mask potential genuine stress incontinence should be appreciated by every reconstructive pelvic surgeon. Thus preoperative barrier testing in women with severe prolapse is useful in identifying individuals who could benefit from an anti-incontinence procedure at the time of reconstructive surgery.

Our data show that women who underwent prolapse repair and TVT have better outcomes compared with patients in which endopelvic fascia plication was used for treatment of occult stress urinary incontinence. Nevertheless an increased risk of intra-operative complications must be considered when any additional anti-incontinence surgery is planned.

## **References**

1. Bump RC, Hurt WG, Theofrastous JP et al. Randomized prospective comparison of needle colposuspension versus endopelvic fascia plication for potential stress incontinence prophylaxis in women undergoing vaginal reconstruction for stage III or IV pelvic organ prolapse. *Am J Obstet Gynecol* 1996; 175: 326-35
2. Ulmsten U, Henriksson L, Johnson et al. An ambulatory surgical procedure under local anesthesia for treatment of female urinary incontinence. *Int Urogynecol J* 1996; 7: 81-86
3. Hurt WG. Stress Urinary incontinence. In: Shingleton HM, Hurt WG, editors. *Postreproductive gynecology*. New York: Churchill Livingstone 1990: 445-7