Mixed Incontinence and Postoperative Voiding Difficulty

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Purpose: The tension-free vaginal tape (TVT) procedure has dramatically changed the treatment of female stress urinary incontinence (SUI), but it is still associated with some risk of voiding difficulty. The operative indication of mixed incontinence is controversial because obstruction may worsen urge symptoms. We investigated whether a urethral pull-down process (UPDP) - pulling down the urethra with a bougie repeatedly during tape positioning - prevents voiding difficulty and influences the effects on mixed incontinence.

Methods: This study involved 138 consecutive women who had urodynamic SUI and who underwent a TVT procedure without other gynecological operations. Thirty-six of them also had urge incontinence (UUI) symptomatically. The TVT procedure was performed as described by Ulmsten et al. in group 1 (n=17). In group 2 (n=50), the tension as measured using a stress test was adjusted before and after the removal of one side of the plastic sheath with repeated UPDP. In group 3 (n=71), the process was also performed after partial removal of the contralateral side of the plastic sheath.

Results: The rate of positive intraoperative stress tests increased from 65% (11/17) in group 1 to 98% (49/50) in group 2 and 100% (71/71) in group 3. Postvoid residual urine became less than 50 ml within 24 hours in 35% (6/17), 54% (27/50), and 90% (64/71) of subjects in groups 1, 2, and 3, respectively. UUI was cured or improved in 33% (1/3), 33% (3/9), and 71% (17/24) of subjects in groups 1, 2, and 3, respectively. De novo UUI persisted for more than 3 months in 7% (1/14), 7% (3/41), and 2% (1/47) of subjects in groups 1, 2, and 3, respectively.

Conclusions: The UPDP is a useful intervention to prevent postoperative voiding difficulty. By avoiding obstruction, the indication of the TVT procedure may be widened to include more patients with mixed incontinence when SUI significantly precedes UUI and patients understand that the primary operative goal is SUI improvement.