

PREDICTIVE VALUE OF THE URETHRA MOBILITY BEFORE SUB-URETHRA TAPE PROCEDURE FOR STRESS URINARY INCONTINENCE IN WOMEN

Aims of Study

To establish if the preoperative mobility of urethra have a predictive value in sub-urethra tape procedure for female stress urinary incontinence.

Methods

Retrospective study, 78 women who had a lateral urethrocytography before sub-urethra tape procedure (Tension-free Vaginal Tape) were included. The urethrocytography was carried out upright after opacification of the urethra and the bladder. First, the patient was asked to tighten her pelvic muscles as to restraint desire to void. Second, the patient was asked to strain with her abdominal muscle. The mobility of the proximal urethra (higher half) was measured by comparing its position at restraint and at strain (figure 1). The objective result was assessed by a negative urinary stress-test and a negative pad-test.

Results

Median age at surgery was 56 (34 to 87). Among the 78 patients, 51 (65%) had undergone one or more previous unsuccessful urinary continence procedure. Median rotation of the proximal urethra was 67° without any previous incontinence surgery, 33° with one previous procedure and 28.5° with two or more previous incontinence procedure ($p < 0.0001$ Kruskal-Wallis test). The median objective follow-up was 9 months (1 to 37) and the objective cure rate was 85% (66/78). The objective cure rate was 97% (29/30) when the mobility of the urethra was over 60° versus 86% (18/21) for a mobility between 30 and 60° and 70% (19/27) when the mobility was inferior to 30° ($p = 0.023$ chi² test). The objective cure rate was 96% (26/27) without previous incontinence surgery versus 84% (31/37) when there was one unsuccessful previous procedure and 64% (9/14) with two or more surgical failures ($p = 0.026$ chi² test). Age at surgery, menopausal status, mixed incontinence, body mass index, parity, overactive bladder and intrinsic sphincter deficiency had no significant prognosis value.

Conclusions

We advocate that the sub-urethra sling uses the mobility of the urethra to avoid leakage, more the proximal part of the urethra moves at stress better the continence is achieved. Risk factors for failure are weak mobility of the proximal urethra and previous continence surgery. At our knowledge, it is the first time that prognosis factors before sub-urethra tape procedure are identified.

Figure 1; Measure of the mobility of the proximal urethra, fine line for the position at restraint and thick line for the position at strain. In this example, the proximal urethra is vertical at restraint and horizontal at strain with a mobility of 102° between these two positions.

