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Paparella P[1], Marturano M[1], Paparella R[1], Ercoli A[1], Falconi G[1], Scarpa A[1]
1. Università Cattolica del Sacro Cuore-Complesso Integrato Columbus

MINIMALLY INVASIVE TRANSOBTURATOR TECHNIQUE FOR THE FEMALE URINARY STRESS INCONTINENCE (SUI): 103 CASES OF URATAPE

Hypothesis / aims of study

To assess the efficacy and the complications of the Uratape® and the modifications of urodynamic patterns after surgery in a population of 103 consecutive patients. Uratape® is an innovative technique for the treatment of female SUI by whom a non-elastic polypropylene tape is inserted tension free by a transobturator approach, underneath the middle third of the urethra.

Study design, materials and methods

From June 2002 to March 2004, 103 Uratape® were inserted (51 associated with other surgery). The patients were affected by SUI and urethral hypermobility (UH) associated or not with urogenital prolapse. The average age was 58.94 (± 10,57); 71 women were in menopause and 19 of them were treated with hormone replacement therapy. We prefered perifericalor local anaesthesia tohave the possibility to regulate the suburethral tape's tension by a stress test at about 300 ml of bladder's refill.All patients were inspected before and after surgery by clinical urogynecological evaluation and by urodynamic examinations, including pression/flow study, standard provocative manoeuvres, urethral pressure profile, Q-TIP test, residual postvoid urine volume and evaluation about quality of life by a Visual Analogic Scale (VAS 1-10).

The voiding disorders suggesting bladder outflow obstruction were defined following two criteria: Q.max <15 ml/s; postvoid residual urine volume > 20%.

The patients that had a minimum of 6 months (8,73 ± 2,88) follow up were 73: among them, only 58 (79,45%) came to the post-operative evaluation; the 15 lost to urodynamic and clinic follow up were subjected to telephonic interview.

Results

47/58 patients (81,03%) are completely cured; 10 are improved (17,23%).One (1,8%) is unchanged.

The average operative time with sole Uratape was 15,07 min. No intra-operative complications and no urethral erosions were recorded. There were two urinarypostsurgical infections cured by antibiotic therapy. We used α- litic therapy after surgery for no more than 7 days in 12 patients: 3 (13%)had undergone to sole Uratape; 9 (28,12%) to Uratape associated with other surgery till to the residual urine volume's normalization.

For 3/73 (4,11%) patients it was necessary the tape's rimotion because of an erosion in right anterior vaginal sulcus(1) and for dehiscence of suburethral suture(2). These patients are still continent.

2/58 (3,4%) were found to have a significant postvoid residual urine volume (> 100 cc)–both have had associated surgery (1 laparoscopic paravaginal repair and 1 vaginal hysterectomy with cystopexy) Two patients (3,4%) developed "de novo" urge incontinence. 13/73 didn't come back to control because they judged themselves cured. It was impossible to contact 2 patients.

	Before surgery	**After surgery**	**p**
Patients with follow up	58	58	
Cured [%]		47 [81.03] *	
VAS (1-10) (±DS)	2,01 (1,21)	7,31 (2,69)	< 0,05
MUCP cm H20(±DS)	37,92 (21,52)	61,27 (22,39)	< 0,05
Max Flow ml/min (±DS)	24,95 (10,05)	18,80 (7,74)	< 0,05
Medium flow ml/min (±DS)	12,92 (6,14)	9,55 (4,27)	< 0,05
Q-tip test (°) (±DS)	48,81 (10,36)	31,62 (12,91)	< 0,05
Postvoid residual volume >100 ml [%]	0	2 [3,44]	N.S.
URATAPE	**Alone**	**Associated**	**p**
Patients [%]	23 [39.66]	35 [60.34]	

Days Post-surgery (±DS)	2,5 (1,40)	4,79 (1,76)	< 0,05

* 2 urge “de novo” [3.4 %], e 2 with postvoid residual volume > 100 cc. [3.4%]

Interpretation of results

According to our results, the Uratape® is a good procedure for the treatment of female SUI. We think that the transobturator tape’s suburethral support works as the fascial suburethral bed; moreover, the arc of circle of the urethra, that is in contact with the tape, is as small as possible to have minimal irritative effects “ in situ”.

The transobturator approach has no risks of bladder, bowel , vascular or nervous injuries (intraoperative cystoscopy is not necessary and so this surgical procedure is time saving).

Despite the statistically significant reduction, the UH persists also in some cases cured. Therefore, we should reflect, like the literature shows,(1) upon the fact that the UH is not the only or the most important factor correlated with urinary incontinence; so, it is possible to affirm that the surgery’s efficacy by “tension-free” technique does not only depend on the correction of urethral hypermobility.

Concluding message

Uratape® is a valid procedure for the treatment of female USI, even though it needs a much more longer follow-up period.

References

1-Urodynamic outcome after surgery for severe prolapse and potential stress incontinence. Am J Obstet Gynecol 2000 June; 182: 1378-1381