

DOES PREOPERATIVE AMBULATORY URODYNAMIC RECORDING IN FEMALES COMPLAINING OF MIXED INCONTINENCE PREDICT THE OUTCOME OF TVT OPERATIONS?

Aim of study

The aim of the study was to evaluate whether objective findings obtained during ambulatory urodynamic recording in mixed incontinent women were predictive of the outcome of Tension Free Vaginal tape operations.

Study design, materials and methods

Ninety-one women complaining of mixed incontinence, all recruited from one hospital from 2001 to 2003, had pre and post operatively the following objective variables recorded: 24 hours pad test, standardised stress test (20 jumps on the spot and 3 coughs with 300 ml bladder volume), residual urine, maximum flow, maximum urethral pressure, bladder pressure and vaginal pressure. The patients had a standardised ambulatory urodynamic recording performed. The bladder was emptied and filled with 300 ml saline. Using micro tip transducer catheters pressures in urethra, the bladder and vagina were recorded. Leakage was detected by 2 concentric rings on the urethral catheter distal to the urethral pressure transducer. The catheter was fixed and a recording was performed in mean 55 minutes (SD 13). Mean amplitude- and mean area under the curve of detrusor contractions causing leakage were recorded. The number of detrusor contractions per 60 minutes was calculated.

A short form disease specific questionnaire was used pre and post operatively. A stress incontinence index has been constructed from the questionnaire by 3 sub indices: When-, how often- and to which extent was stress incontinence experienced? An urge incontinence index has been constructed by 2 questions: How often and to which extent is urge incontinence experienced? Four items construct the quality of life index. How many pads were used (1), how often did they avoid activities- (2) or places or situations- (3) due to fear of leakage and how did leakage influence vacations, family life, social life and sleep (4)? Postoperatively the patients recorded their satisfaction. The choices were: very satisfied, some satisfaction, neither satisfied nor unsatisfied, slightly unsatisfied and very unsatisfied. In all items a scale of 5 categories were possible choices, with the scores ranging from 0 to 4. An increasing score, means a less favourable situation. The questionnaire has been validated and found reliable. The urge incontinence-, stress incontinence- and the quality of life indices were ranging from zero to 8, 12 and 16 respectively. The questionnaire was completed by the patient preoperatively and at the follow up, mean 9.4 months (SD 3.6) post operatively. All patients had a TVT operation performed. Statistics: Spearman rank correlation test, Fisher's exact test.

Results

Detrusor overactivity incontinence was detected in 50 of 91 women. A correlation was found between preoperative number of detrusor contractions per 60 minutes and the difference between the pre and the postoperative urge and stress incontinence indices ($p < 0.01$). Patients who had no detrusor contractions were more often very satisfied with the TVT operation ($p < 0.05$) than patients who had detrusor overactivity incontinence.

A correlation was found between preoperative mean area under the curve and the difference between the pre and the postoperative quality of life index ($p < 0.01$) and the preoperative mean amplitude per detrusor contraction and the difference between the pre and the postoperative quality of life index ($p < 0.05$).

Interpretation of results

Mixed incontinent patients, leaking during stress test and during involuntary detrusor contractions during ambulatory urodynamic recording, are postoperatively more bothered by urge and stress incontinence than patients without detrusor overactivity incontinence. They are also less satisfied with the operation.

An increased preoperative mean area under the curve and mean amplitude per detrusor contraction is followed by a less favourable difference between the pre and the postoperative quality of life.

Concluding message

Detrusor overactivity incontinence detected during ambulatory urodynamic recording in mixed incontinent patients does predict post operative bother with stress and urge incontinence, reduced satisfaction and a worse quality of life.