

A COMPARISON OF ANTICIPATORY AND POST-PROCEDURE PAIN PERCEPTION IN PATIENTS UNDERGOING URODYNAMIC EVALUATION

Aims of Study

To compare anticipatory and post-procedure pain perception in female patients undergoing multichannel urodynamic evaluation in a clinic setting.

Methods

One hundred consecutive female patients scheduled for urodynamic testing completed a 10-cm visual analogue pain scale (VAS) prior to and following the procedure. Patients were asked whether they had undergone urodynamics previously or whether they had talked to anyone about the procedure. Uroflowmetry, cystometry, urethral profilometry, and voiding studies were performed with water infusion in the semi-recumbent position using a dual sensor 8F Millar microtip transducer catheter in the urethra, and a single sensor microtip transducer catheter in the vagina or rectum. Water infusion at 80 ml per minute was delivered through the urethral catheter. Demographic information was collected by chart review from the initial urogynecologic questionnaire and examination. VAS scores were evaluated for significance using the student t-test.

Results

Mean age was 61.4, mean body mass index (BMI) was 28.2, and median parity was 2. Of the 100 patients, 49 had prior hysterectomy, 25 had surgery for incontinence, and 69 demonstrated pelvic organ prolapse (POP) with a mean stage of 1.5. Seventy-nine were postmenopausal, 42 were taking estrogen replacement therapy (ERT), 23 were using analgesics, and 27 were on psychiatric medication. Twenty-nine patients had undergone urodynamic testing previously and 49 had talked to someone other than their physician regarding the procedure. The mean post-procedure pain score of 2.32 cm was significantly lower than the anticipatory pain rating of 4.35 cm ($p < 0.05$). The significantly lower post-procedure pain perception threshold was not influenced by previous hysterectomy, BMI, menopausal status, ERT, analgesics or psychiatric medication usage. Neither previous urodynamic experience (mean VAS score 2.50 Vs. 2.26 cm, $p = 0.66$) nor talking with someone about the procedure beforehand (mean VAS score 2.47 Vs. 2.17 cm, $p = 0.47$) influenced the lower post-procedure pain rating. There was no significant correlation between age, parity, BMI, or presence of pelvic organ prolapse and anticipatory or realized pain perception. Patients who had prior incontinence surgery reported significantly higher levels of pain (mean VAS score 3.10 vs. 2.06 cm, $p = 0.027$) during the procedure.

Conclusions

Patients undergoing urodynamic testing consistently anticipate higher degrees of discomfort than they actually perceive during the procedure. Previous anti-incontinence surgery appears to lower the pain threshold. Multichannel urodynamics is well tolerated in an office setting with minimal perceived pain.