106

Tse V[1], Bromage S J[1], Chan L[1], Dorkin T J[1]
1. Concord Repatriation Hospital

URODYNAMICS IN THE OCTOGENARIAN: IS IT WORTHWHILE?

Hypothesis / aims of study
Treatment of lower urinary tract (LUT) dysfunction in the elderly is often based on symptoms which may correlate poorly with definitive diagnosis and carry significant side-effects. In the aged, LUT dysfunction is often a multifactorial process which can lead to difficulty in diagnosis and management. We analysed the utility of urodynamic assessment in an elderly population to determine how closely symptoms predict urodynamic diagnosis, and whether urodynamic evaluation affected patient management.

Study design, materials and methods
Between November 2001 and March 2006, 190 patients over the age of 80, who underwent multi-channel fluoroscopic or ultrasound urodynamics for the assessment of LUT dysfunction, were included. The studies were conducted at a teaching hospital-based urodynamics unit which has an annual case load of approximately 600 patients. All studies conform to International Continence Society (ICS) standards. Clinical records were analysed to collect data on patient symptoms and management. The clinical and urodynamic diagnoses were compared to assess the sensitivity and positive predictive value (PPV) of symptoms in this population. Two specific groups of patients were focused on: those with pure storage symptoms and those with pure voiding symptoms. The rationale behind this was that these 2 groups are often treated empirically with a presumed diagnosis of detrusor overactivity (DO) or bladder outlet obstruction (BOO), respectively.

Results
There were 137 males and 53 females. The mean age was 83.8 years (range 80-94). There was a pre-existing neurological disorder in 24 (12.6%), most commonly cerebrovascular disease. All patients completed the urodynamics studies successfully. DO was the most common urodynamic diagnosis in men, seen in 60/137 (43.8%), whereas urodynamic stress incontinence was the most common diagnosis in women, seen in 23/53 (43.4%). 84/190 (44.2%) patients presented with pure storage symptoms (42 men and 42 women), and DO was found in only 33 of these (PPV for pure storage symptoms – 39.3%). 38/190 (20%) patients presented with pure voiding symptoms (31 men and 7 women), and BOO was identified in only 16 of these (PPV for pure voiding symptoms – 42.1%). The sensitivities for pure storage symptoms and pure voiding symptoms in predicting DO and BOO, respectively, were 45.8% and 29.1%. Fifty patients (26.3%) had detrusor hypocontractility and 53 (27.9%) had decreased compliance. Only 15 patients (7.9%) had a normal urodynamic study.

Based on urodynamics, 106/190 (55.8%) patients had a change of management. Pharmacological treatment was recommended in 52 patients (27.4%). This was most commonly anticholinergic and alpha-blocker therapy. Surgical treatment was recommended in 54 patients (28.4%): the majority being transurethral resection of prostate (TURP).

Interpretation of results
This study demonstrates that in octogenarian and older patients, there is poor correlation between symptoms and urodynamics diagnosis. In particular, the sensitivity and positive predictive value for storage and voiding symptoms in predicting respective DO and BOO is low**.** Empirical therapy for overactive bladder symptoms or voiding symptoms may be inappropriate for up to 60% of patients. We have also demonstrated that urodynamics is well tolerated in the elderly and can guide patient management. This is particularly important for patients with presumed DO or BOO, in whom empirical prescribing of antimuscarinic or alpha-blocking agents may be associated with significant side effects. Empirical pharmacotherapy may be more appropriate for the younger fit patient.

Concluding message
In octogenarians and older patients, there is a poor correlation between LUT symptoms and the urodynamic diagnosis. In suitable elderly patients, urodynamic evaluation is useful and can guide patient management.

FUNDING: NONE
DISCLOSURES: NONE
HUMAN SUBJECTS: This study did not need ethical approval because there was no deviation from accepted standard of care. This was not a clinical trial. and did not follow the Declaration of Helsinki - with approval by the ethics committee - in the sense that this was not a clinical trial Informed consent was obtained from the patients.