Urodynamic findings in patients with urinary symptoms and Parkinson’s disease

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Aim of study

Urinary dysfunction is common in Parkinson’s disease (PD) and other parkinsonisms and affects quality of life. The aim of this study was to define the urodynamic abnormalities of these patients.

Material and Methods

Retrospective and descriptive analysis from urodynamic studies performed between 2001 and 2012, collected in a database filmaker. We obtained 51 urodynamic studies of patients with Parkinson’s disease and other parkinsonisms. The urodynamic evaluation was performed and interpreted in accordance with the 2002 Good Urodynamic Practice guidelines of the International Continence Society. Filling cystometry at rate of 30 mL/min and voiding cystometry with surface electromyography. Urodynamic parameters measured included: First desire to void (FDV), Normal desire (ND), Maximum cystometric capacity (MCC), Compliance, Volume at first involuntary detrusor contraction (VIFC), Maximum involuntary detrusor contraction (MIC), Qmax, Pdet Qmax, Postvoid residual (PVR), Abrams-Griffiths number (AG) only in men. Bladder contraction index (BCI). Low compliance, increased bladder sensation, (IBS) when FDV<100 mL. Involuntary detrusor contractions (IC). Urinary incontinence, Detrusor-external sphincter dyssynergia (DSD). Obstruction: in men according ICS nomogram, in women if PdetQmax>30 cmH2O and Qmax+10 mL/s. Detrusor underactivity (DU) if BCI+100.

Results

Demographics are listed in Table 1. Urodynamic parameters evaluated are listed in Table 2. The most common abnormal urodynamic finding was detrusor overactivity in 41 patients (82%). 27 patients (55.1%) had increased bladder sensation. During the voiding phase the most common abnormal urodynamic finding was obstruction in 22 patients (53.6%). Table 3.

The results of urodynamic parameters showed that male had a significantly higher PdetQmax than female (p=0,007), and no difference in urodynamic parameters between PD patients and other parkinsonisms patients. Table 4. The results of urodynamic findings showed that patients with other parkinsonisms had a significantly increased incontinence rate than PD patients (100% vs. 37,2%), and male and female had the same obstruction rate (58.6% vs. 41.6%) (p=0,322). Table 5

Conclusions

The most common abnormal urodynamic finding in these patients is detrusor overactivity. We have found no differences between gender regarding obstruction. Urinary dysfunction in patients with PD shows differences from other parkinsonisms patients, the latter showing more incontinence rate and more DSD rate than the PD patients. Further studies are needed.

Bibliography


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