

ARE THE UROLOGISTS AND NEUROLOGISTS KNOW ENOUGH ABOUT THE UROGENITAL SYSTEM INVOLVEMENT OF MULTIPLE SCLEROSIS?

Hypothesis / aims of study

Multiple sclerosis is a demyelinating disease of the central nervous system with different clinical signs and findings that progresses with episodes of exacerbation and remission. The urinary system is affected in more than 80% of multiple sclerosis patients, and shows a variety of signs and findings. This study aims to evaluate all urological symptoms and findings, accompanied by urodynamic findings, in patients monitored due to multiple sclerosis.

Study design, materials and methods

We retrospectively investigated the data of 73 patients, without differentiating the type of MS, who has consulted our clinic between 2003 and 2011, in this study. The physical examination findings, demographic characteristics (age, gender, duration of MS, duration of urinary symptoms, age of MS diagnosis, age of onset of urinary complaints after MS diagnosis), symptoms, and complications (urge urinary incontinence, retention, stress urinary incontinence, frequency, urgency, enuresis nocturna, recurrent urinary infections, erectile dysfunction, retrograde ejaculation, dyspareunia) of the patients at the time of consultation were individually investigated. Patients with symptomatic benign prostate hyperplasia, bladder stones, and/or urethral stricture were excluded. The results of any urodynamic investigations of monitored patients were evaluated. Before urodynamic investigation, patients provided a negative urine culture, and the investigation abided by the standards of the International Continence Society (ICS). Finally, the treatments and results of all patients are discussed.

Results

The study included 49 female (67.1%) and 24 male (32.9%) patients, consisting 73 patients in sum. When the demographic characteristics of our patient group are investigated, the average age (mean±standard deviation) was identified as 40.7±11.15 years (interval 22-65) (Table 1). Urinary complaints were present in 70 patients (95.8%) (Table 2). The average number of urinary symptoms was 1.4±0.64. Of the 24 male patients, 3 (12.5%) did not describe any urinary complaints, but applied due to orgasmic complaints. The most frequent cause for application of patients was urgency (58.9%, n=43). Urge incontinence was the most frequently identified symptom in both women (55.1%) and men (45.8%). Additionally, in male patients 37.5% had erectile dysfunction, while 12.2% of female patients had dyspareunia. Two female patients (4.08%) complained of incontinence during orgasm. While the average bladder capacity of the 45 patients who underwent urodynamic investigation was 352.6±154.7 ml, 13.3% of these patients were normal, 17.8% had detrusor contraction disorders, 20% had DOA + DSD, and 48.9% had only DOA. Within the framework of the patients' clinical and urodynamic findings anticholinergics, alpha blockers, clean intermittent catheterization (CIC), ephedrine, botox injections, and PDE 5 inhibitors were administered either alone or combined. It was observed that all but 2 patients had full or partial benefit from the treatments in the acute period.

Interpretation of results

MS is a frequently observed disease that affects the urogenital system. In our patient group there was no clear correlation between the patients' symptoms and urodynamic findings. When examined from this aspect, urinary symptoms and findings alone may be insufficient to evaluate patients. Urodynamic investigation appears to be a required investigation to be completed when necessary for the MS patient group.

Concluding message

While the urogenital complaints multiple sclerosis causes may negatively affect the quality of life of patients, at the same time the complications may cause threats to life. That is why multiple sclerosis is a disease that should be known well not only by the neurology experts but also by the urology experts.

Table 1: General characteristics of patients

Gender	Female : N (%)	49 (67.1%)
	Male : N (%)	24 (32.9%)
Average Age		40.7 ± 11.15 (22-65)
Age of MS Diagnosis		33.03±10.69
Age of Onset of Urinary Complaints after MS Diagnosis		35.78±10.79
Duration of MS (Months)		99.4 (2-420) (± 90.16)
Duration of Urinary Symptoms (Months)		58 (1-240) (±66.47)

Table 2: Patients complaints and findings at time of application according to gender

Complaint	Female	Male	Total
Urge Urinary Incontinence	55.1%	45.8%	52.0%
Retention	42.8%	37.5%	41.1%
Stress Urinary Incontinence	16.3%	4.16%	12.3%
Frequency	6.12%	8.3%	6.8%
Urgency	67.3%	41.6%	58.9%
Urgency without Urge Incontinence	8.16%	-	5.5%
Enuresis Nocturna	4.08%	4.16%	4.1%
Recurrent Urinary Infection	8.16%	-	5.4%
Erectile Dysfunction	-	37.5%	-
Retrograde Ejaculation	-	12.5%	-
Dyspareunia	12.2%	-	-

Disclosures

Funding: Authors declare no conflict of interest or financial disclosure for this manuscript. **Clinical Trial:** No **Subjects:** HUMAN
Ethics Committee: Gazi University Clinical Research Ethics Committee **Helsinki:** Yes **Informed Consent:** No