

Incidence of Multiple Sclerosis in Patients Presenting with Neurogenic Bladder

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Introduction: Bladder and bowel dysfunction are very common in patients with multiple sclerosis (MS). Bladder dysfunction can significantly affect the quality of life of MS patients. There is an unclear relationship between initial bladder disturbance and incidence of MS.

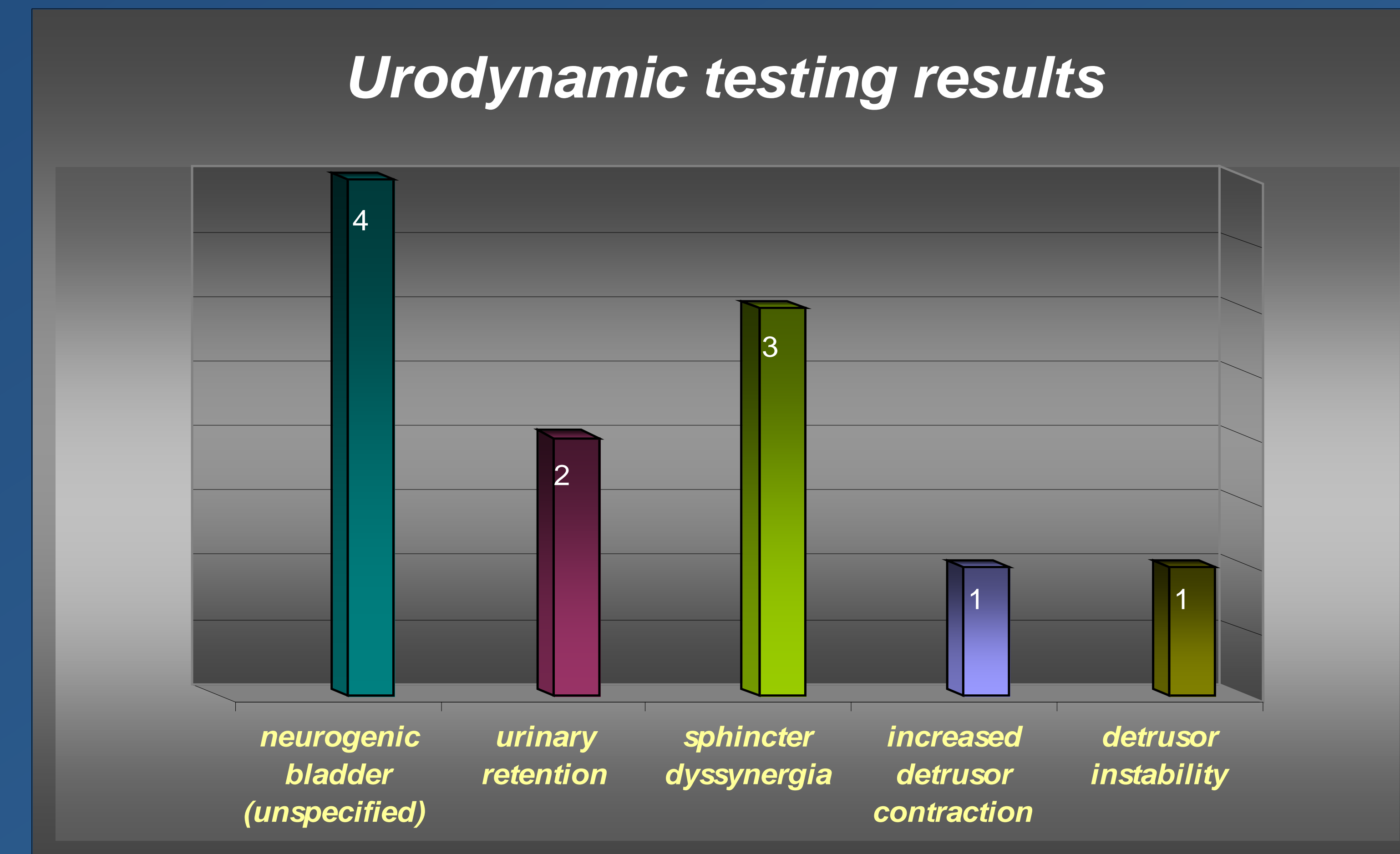
Objective: To evaluate the incidence of multiple sclerosis diagnosis in patients presenting initially to a urologist with spastic neurogenic bladder.

Methods: All patients were initially evaluated and diagnosed with spastic neurogenic bladder by urologists, and then referred to our clinic to investigate for neurological causes for their symptoms, from 2004 through 2010. There were 15 total referrals, but two patients were excluded because of lack of follow up. Age ranged from 18 to 51. There were 12 females. All patients had magnetic resonance image (MRI) with contrast of the spine and/or brain after the initial neurology visit. Some patients underwent lumbar puncture if MS was suspected. Several patients had electromyography.

Results: A total of 13 patients were evaluated, twelve female. The mean age at the time of referral was 36 and the mean age of symptom presentation was 30. The most common initial urologic symptoms were urgency, frequency and incontinence. Three patients had urinary retention as their presenting symptom and one had mixed urinary symptoms. All patients were evaluated with urodynamic studies and referred to our service with the diagnosis of neurogenic bladder of undetermined etiology. A brain MRI was performed in all patients. 3 female patients had brain white matter lesions which fulfilled the Barkhof criteria for MS. Additional testing was performed based on individual findings. Patients diagnosed with MS were placed on disease modifying agents.

Demographics patients	n = 13
Female	12
Mean age	36
Mean age of presentation of symptoms	30
Diagnosis of MS with fulfillment of Mc Donald criteria	3

Table 2. MRI findings	patients (n)
Demyelinating lesions	3
Mc Donald Criteria	3
Barkhof Criteria	3
Enhancing lesions	0
Spinal cord demyelinating lesions	
Cervical	2
Thoracic	0
Other MRI findings	7
Disk degeneration	2
Spondylosis	3
Mild spinal cord atrophy	1
Foraminal Stenosis	1



Discussion: Bladder dysfunction is one of the most common symptoms in MS patients, although is rarely an isolated symptom at the disease onset. It is commonly associated with sexual dysfunction. The common underlying abnormalities are detrusor hyperreflexia, detrusor-sphincter dyssynergia and hypotonic bladder.

Neurogenic bladder can be idiopathic or secondary to spinal cord insult or brain abnormalities.

Conclusions:

- There is relatively low incidence of MS in patients presenting with neurogenic bladder as a clinically isolated syndrome.
- Longer term follow-up will be necessary to evaluate whether additional patients ultimately develop MS.

References:

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