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ultiple sclerosis (MS) affects 400,000 individu-

als in the United States, and 265,000 individuals are living with spinal cord injury (SCI).1,2 Lower urinary tract dysfunction, a common finding in both groups, may arise from the bladder itself as the result of neurogenic or detrusor sphincter dyssynergia, or from the urethral sphincter, in the form of detruz-

sor–sphincter dyssynergia. Neurogenic detrusor overactivity (NDO) is the presen-

tice of involuntary bladder contractions on urodynamic study in a patient with a

known neurologic condition. Inadequate management of lower urinary tract problems in patients with MS and SCI can lead to bladder- and incontinence-related complications, including urinary tract infection (UTI), sepsis, urinary tract calculi, autonomic dysreflexia, skin complications, and depression.3

Recently, a multidisciplinary panel of urologists, neurologists, physiatrists, nurse practitioners, and representatives from the Consortium of Multiple Sclerosis Centers, United Spinal Association, Inc., and Multiple Sclerosis Association, Inc., met to discuss issues in assessment, diagnosis, and management of adults with NDO. The panel unanimously agreed that a team approach—e.g., primary care provider, neurologist, urologist, physiatrist, and nurse practitioner/physician assistants, and other personnel or family members involved in the patient’s care—is essential to optimizing medical and urologic management.

The results of a recent retrospective and prospective urological claims analysis for more than 46,000 patients with neurogenic bladder dysfunction–related incontinence, including more than 9,000 with MS and more than 4,000 with SCI, suggest suboptimal management as indicated by high rates of UTI and hospitalization.4 During a 1-year follow-up, only 36% of patients with SCI and 26% of patients with MS saw a urologist; 18.5% and 53%, respectively, saw a neurologist; and 18% and 7.5%, respectively, received physical medicine and rehabilitation—undercoding the need for physician education.

Evaluation and management of lower urinary tract dysfunction is crucial, since individuals with SCI are at increased risk for upper urinary tract damage, and UTI in patients with MS can exacerbate disease-related symptoms. However, family practitioners, internists, neurologists, physiatrists, and nurse practitioners/physician assistants may be at a disadvantage to address bladder issues. They may lack training, may be unprepared to discuss the subject with patients, and may not be aware of all therapeutic modalities. Even in the urologic literature, there is no definitive consensus on how to manage lower urinary tract symptoms in patients with MS and SCI.

The multidisciplinary panel agreed that urologic management of patients with SCI should be based on urodynamic rather than neurologic findings, whereas in patients with MS, urodynamic studies are indicated for urodynamic rather than neurologic findings, whereas in patients with MS, urodynamic rather than neurologic findings, whereas in patients with SCI and MS in whom catheterization is not feasible, incontinence cannot be controlled, and/or upper urinary tract changes have occurred (eg, hydronephrosis), a procedure such as urinary diversion may be an alternat-

ive.4,5 However, such procedures are associated with complications (infections, calculi, ureterointestinal strictures). For patients with MS, these procedures generally are considered only for those with significant disability who have failed nonsurgical treatments.4,6

Long-term follow-up of patients with NDO is critical. Notably, up to 55% of patients with MS, with and without new symptoms, will develop changes in their detrusor compliance and urodynamic pattern.7 Caution should be exercised in recommending irreversible options, as improved pharmacotherapy and intradetrusor injections of OnaBoNT-A have reduced the need for surgery.


Improving Bladder Care for Patients With Multiple Sclerosis and Spinal Cord Injury

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CME INFORMATION

Target Audience: This activity is designed for neurologists, urologists, physiatrists, and other health care professionals interested in or involved with the management of patients with multiple sclerosis (MS) or spinal cord injury (SCI) who are at risk for neurogenic detrusor overactivity.

Accreditation Statement: This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Warren Alpert Medical School of Brown University and Health and Wellness Education Partners. The Warren Alpert Medical School is accredited by the ACCME to provide continuing medical education for physicians.

Educational Objectives: At the conclusion of this activity, participants should be able to:

• Describe the effect of bladder dysfunction on health and health-related quality of life in individuals with MS and SCI
• Identify factors and barriers influencing optimal management of neurogenic detrusor overactivity (NDO) across specialties
• Discuss the clinical aspects of NDO including its multiple etiologies, patient evaluation, varying treatment goals, and common coexisting conditions
• Review current and future options for the management of NDO in patients with MS and SCI
• Adopt new standards of care for multidisciplinary management of NDO in the practice setting

Disclosure: In accordance with the disclosure policy of the Warren Alpert Medical School of Brown University, all individuals in a position to control the content of a CME activity are required to disclose relevant financial relationships with commercial interests. Complete faculty disclosure information is available at http://www.urotodayinternationaljournal.com.

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