

## Dysfunction in the Urinary System in the Patients with Multiple Sclerosis and Spinal Cord Involvement

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### Abstract

Urinary system dysfunction can be seen in the patients with multiple sclerosis. This is a brief review on some important clinical aspects of such problem.

### Key Words:

Urinary System Dysfunction - Multiple Sclerosis - Spinal Cord Involvement

### Body:

Various degrees of bladder dysfunction can be seen in the patients with multiple sclerosis. Urinary tract infections should be treated appropriately in the patients with multiple sclerosis. Incontinence and spastic bladder can be seen in the patients with lesions at the upper thoracic and cervical levels. Urinary urgency is common in this patients group. Dyssynergia between detrusor and sphincter which in that condition, there would be contraction in the detrusor against the closed sphincter of the urethra, can be seen in the patients with lesions at the middle and lower thoracic levels. Voiding difficulties, weak urinary stream and feelings of excessive straining are the chief urinary complaints of these patients. Overflow incontinence and hypotonia in the bladder can be seen in the lesions at the lumbar and sacral levels. Urinary leakage with an intermittent manner and incomplete bladder emptying, are the main urinary problems of the relevant patients.

Post-void urine residual volume measurement should be done in the patients in order to determine and classify their problems accurately. Less than 100 cm<sup>3</sup> of post-void residual volume in a patient with urge incontinence, can be the result of spastic bladder. Tolteridone and oxybutinin can be used to treat these patients. More than 100 cm<sup>3</sup> of post-void residual volume in a patient with overflow incontinence, can be the result of flaccid bladder. Straight catheterization with an intermittent manner should be used to treat these patients.

Botulinum toxin injections, indwelling suprapubic catheter and placing a sacral stimulator, can be used to treat the refractory symptoms in the patients in case intermittent catheterization and drug therapy cannot be successful to treat the urinary problems.

### Conclusion:

It is important for the physicians who treat the patients with multiple sclerosis to have knowledge about possible urinary problems in this patients group and their treatment methods, to deal with such complaints of these patients more effectively during clinical practice.

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