

VOIDING DYSFUNCTION IN WOMEN WITH RELAPSING NEUROMYELITIS OPTICA: CLINICAL AND URODYNAMIC CHARACTERIZATION

Hypothesis/aims of study: Relapsing neuromyelitis optica (RNMO) is an uncommon but devastating disorder of the central nervous system that affects mainly women. It is caused by an autoimmune inflammatory demyelinating disorder characterized by recurrent attacks of optic neuritis and longitudinally extensive transverse myelitis. We assessed the lower urinary tract symptoms (LUTS) and urodynamic findings in women with RNMO, a population that has not been previously evaluated in this regard.

Study design, materials and methods: We prospectively evaluated 13 women with a mean age of 41.5 ± 13.4 years (range 22 to 70) and mean duration of disease of 40.2 ± 39.6 months (range 6 to 135). All patients had an established diagnosis of RNMO and were invited to participate irrespective of the presence of LUTS. Neurological impairment was assessed by the Expanded Disability Status Scale (EDSS) and LUTS

were assessed with the Bristol Female Lower Urinary Tract Symptoms (BFLUTS) and Overactive Bladder V8 (OAB V8) questionnaires. General quality of life (QOL) was assessed with the Life Satisfaction (LiSat) questionnaire and bother due to voiding symptoms was assessed with the question 2 of the Kings Health questionnaire. All patients underwent urodynamics and urinary tract sonography.

Results: Neurological evaluation showed a mean EDSS score of 5.3 ± 2.1 (range 1 to 8). The mean BFLUTS score was 26.5 ± 20.8 (range 3 to 64) and the mean OAB V8 score was 16.0 ± 15.4 (range 0 to 40). The most common urinary complaints were incomplete emptying in 8 (61.5%) patients, increased urinary frequency in 7 (53.8%), urge-incontinence in 7 (53.8%) and weak urinary stream in 6 (46.1.3%). Three (23.1 %) patients used diapers. Mean QOL measured by the Lisat was 36.9 ± 6.4 and mean bother by LUTS was 1.4 ± 1.3 . Urodynamics revealed detrusor overactivity (DO) with sphincteric dyssinergia (DESD) in 5 (38.5%), DESD without DO in 2 (15.4%) and DO with normal emptying in 1 (7.7%). Five (38.5%) patients had normal findings. Urinary tract sonography was normal in 11 (84.6%) while two (15.4%) had bladder wall thickening.

Interpretation of results: Patients with DESD had significantly higher BFLUTS and OAB V8 scores ($p = 0.003$) as well as increased bother due to LUTS ($p = 0.030$). Voiding dysfunction increased with disease duration and degree of neurological impairment (Spearman's $\rho = 0.663$, $p = 0.013$; $r = -0.583$, $p = 0.036$, respectively).

Concluding message: Women with RNMO have a high prevalence of LUTS, with detrusor-external sphincter dyssinergia and detrusor overactivity as the main urodynamic findings. The severity of the neurological disease is associated with a higher chance of voiding dysfunction.

References

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Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes