CLINICAL CHARACTERISTICS AND URODYNAMIC ANALYSIS OF URINARY DYSFUNCTION IN MULTIPLE SCLEROSIS: A SINGLE CENTER STUDY

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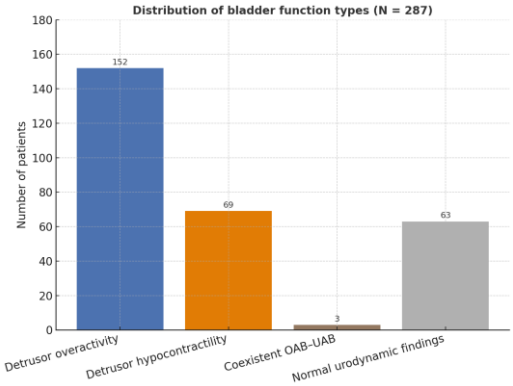
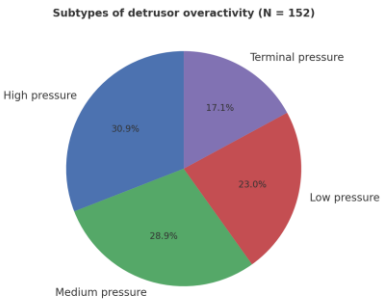
INTRODUCTION: Neurogenic urinary dysfunctions are frequent and debilitating manifestations of multiple sclerosis (MS).

OBJECTIVES / AIMES: To characterize the urodynamic patterns in patients with multiple sclerosis and to evaluate their association with clinical phenotype, lesion distribution, disability, and therapeutic approaches.

METHODS: A retrospective cohort study was conducted in patients followed at the MS Center and Rehabilitation Unit of the University Hospital Policlinico of Bari. Urodynamic study (UDS) patterns were evaluated. MS lesion sites were determined by combining neurological examination and magnetic resonance imaging (MRI) during the follow-up.

RESULTS The cohort included 287 patients, of whom 189 (65.9%) were female, 187 were diagnosed with RRMS, 28 with PPMS, and 72 with SPMS. The mean (SD) follow-up was 13.59 (8.88) years. 260 (90.6%) subjects presented brain and spinal cord MS lesions, 9.4% only brain lesions; no significant correlation was found between MRI topography and occurrence of urinary dysfunctions. A total of 152 patients (52.9%) presented with detrusor overactivity: 47 with high pressure (30.9% of 152), 44 (28.9%) with medium pressure, 35 (23.0%) with low pressure, and 26 (17.1%) with terminal pressure. Among them, 122 (80.3%) had reduced compliance and 124 (81.6%) had decreased cystometric capacity. Detrusor hypocontractility was observed in 69 patients (24.0%), including 12 (17.4%) with absent bladder sensation and 17 (24.6%) with increased bladder compliance. Three patients (1.0%) had coexistent overactive-underactive bladder. Detrusor sphincter dyssynergia was present in 92 patients (32.1%) and, compared to RR, SPMS patients presented it more frequently (34.7% vs 32%). Intermittent catheterization (IC) was indicated in 102 patients (35.5%), corresponding to 29.6% of those with detrusor overactivity and 75.4% of those with hypocontractility. The IC group presented a significative longer median disease duration at treatment start compared to other therapies (11.96 vs 7.15 years, p<0.005). Urinary dysfunction was evident at MS onset in 27 (9.4%) patients, which presented irreversible severe disability scores during the follow-up.





CONCLUSIONS Urinary dysfunctions in MS can present in various forms and require careful evaluation. Early diagnosis is crucial to identify effective therapies and improve quality of life.

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