Nocturnal Symptoms of Multiple Sclerosis

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Abstract

Multiple sclerosis (MS) is a chronic inflammatory and neurodegenerative disease of the central nervous system characterized by a broad spectrum of neurological manifestations, among which nocturnal symptoms represent an important yet frequently underrecognized aspect of the disease. Their pathophysiology is associated with demyelination, neuroinflammation, and dysfunction of neuronal networks involved in sleep–wake regulation. Common nocturnal manifestations include spasticity, pain, urinary disturbances, and sleep disorders, which may substantially impair sleep continuity and quality. Nocturnal spasticity and pain contribute to difficulties initiating sleep and frequent awakenings, while nocturia and other forms of urinary dysfunction further increase sleep fragmentation. Consequently, patients may experience increased daytime fatigue, reduced cognitive performance, emotional disturbances, and impaired quality of life. The frequency and severity of nocturnal symptoms may vary according to disease phenotype and progression. Their assessment requires a combination of subjective and objective methods, including standardized sleep quality questionnaires, sleep diaries, actigraphy, and polysomnography. Management should be individualized, addressing both underlying neurological manifestations and coexisting sleep disorders. Routine screening for nocturnal symptoms and multidisciplinary collaboration involving neurologists, sleep medicine specialists, and other healthcare professionals are essential for optimizing patient care. Systematic assessment and timely management of nocturnal manifestations may contribute to improved sleep quality, daily functioning, and overall quality of life in individuals with multiple sclerosis.

Keywords: Multiple Sclerosis; Sleep Wake Disorders; Muscle Spasticity; Pain; Quality of Life

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Noćni simptomi multiple skleroze

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Sažetak

Multipla skleroza (MS) kronična je upalna i neurodegenerativna bolest središnjeg živčanog sustava obilježena širokim spektrom neuroloških simptoma, među kojima noćne tegobe predstavljaju važan, često nedovoljno prepoznat aspekt bolesti. Njihova patofiziologija povezana je s procesima demijelinizacije, neuroinflamacije i poremećene funkcije neuronskih mreža uključenih u regulaciju spavanja i budnosti. Najčešći noćni simptomi uključuju spastičnost, bol, urinarne smetnje i poremećaje spavanja, koji mogu značajno narušiti kontinuitet i kvalitetu sna. Noćna spastičnost i bol uzrokuju otežano usnivanje i učestala buđenja, dok nokturija i drugi oblici urinarne disfunkcije dodatno pridonose fragmentaciji spavanja. Posljedično se javljaju izraženiji dnevni umor, smanjena kognitivna učinkovitost, emocionalne poteškoće i narušena kvaliteta života. Učestalost i izraženost noćnih simptoma mogu varirati ovisno o kliničkom obliku i stupnju progresije bolesti. Njihova procjena zahtijeva kombinaciju subjektivnih i objektivnih metoda, uključujući standardizirane upitnike o kvaliteti spavanja, dnevnike spavanja, aktigrafiju i polisomnografiju. Terapijski pristup treba biti individualiziran i usmjeren na liječenje osnovnih neuroloških simptoma te pridruženih poremećaja spavanja. Rutinsko prepoznavanje noćnih tegoba i multidisciplinarna suradnja neurologa, somnologa i drugih stručnjaka ključni su za optimizaciju liječenja. Sustavna procjena i pravodobno zbrinjavanje noćnih simptoma mogu pridonijeti poboljšanju kvalitete spavanja, svakodnevnog funkcioniranja i ukupne kvalitete života osoba s multiplom sklerozom.

Ključne riječi: multipla skleroza; poremećaji spavanja; spastičnost; bol; kvaliteta života

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