



LETTER TO THE EDITOR

Comment on “Long-term disability in multiple sclerosis: a longitudinal study over 20 years”

Yorum: “Multipl sklerozda uzun dönem yeti yitimi: 20 yıllık uzunlamasına bir çalışma”

Uğur Ertem¹

¹Bursa Uludağ University, Bursa, Türkiye

To the Editor,

In this article, I would like to share my opinions about the publication named "Long-term disability in multiple sclerosis: a longitudinal study over 20 years" and evaluate the disability in patients diagnosed with multiple sclerosis (MS) from a physiatrist's perspective¹. In the current study, it was concluded that a high initial Expanded Disability Status Scale (EDSS) scores in MS patients, lack of full recovery after the first attack, and a longer period between attacks may provide insight into predicting long-term disability¹.

As is known, MS is a chronic inflammatory demyelinating disease of the central nervous system (CNS) whose etiology is not fully understood and whose course is difficult to predict^{2,3}. Due to the fact that, MS is a chronic disease, its incidence is increasing, and its many negative effects, including both individual disability and social loss of workforce, there is a need for conducting new studies on its treatment. Although new treatment options are suggested day by day, physiotherapy and exercise therapy are applied in combination with each treatment in MS patients. Regardless of the severity of the disease, starting physical activities primarily reduces the negative effects of akinesia and thus provides improvements in functional status and reduces disability³.

Tollar et al. evaluated the effect of exercise therapy on functional status and motor functions in MS patients, they found that exercise improved the

patients' functional status, clinical and motor findings, regardless of the patient's initial disability level⁴. Another randomized controlled study examined the effects of aquatic exercises on postural control and hand function in MS. As a result of the study, it was determined that in-water pilometric exercises improved the balance, dexterity and functional status of patients with MS⁵. In a study by Grazioli et al., they found that physical activity is beneficial in patients with MS and that exercise is effective in achieving functional and psychological therapeutic results. They also found that combined resistance and aerobic exercises reduced disability in patients with MS⁶. In another study, it was stated that exercise could stimulate neurotrophic production and secretion in patients with MS and that this was independent of the patient's EDSS score and disability status. This study indicated that exercise therapy may have an adjuvant effect for disease-modifying therapy in individuals with MS⁷.

In conclusion, it is clear that exercise and physiotherapy reduce disability in patients with MS. In the current study, the exercise status of the patients and whether they received physiotherapy support were not questioned, and this may change the results. Therefore, it should not be forgotten that exercise therapy is an important modifying factor and should be examined in studies examining the predictive factors of long-term disability in MS. It would be more proper to take these factors into consideration in future studies.

Address for Correspondence: Uğur Ertem, Bursa Uludağ University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Bursa, Türkiye E-mail: ugurertem@uludag.edu.tr

Received: 22.11.2023 Accepted: 20.01.2024

Author Contributions: Concept/Design : UE; Data acquisition: UE; Data analysis and interpretation: UE; Drafting manuscript: UE; Critical revision of manuscript: UE; Final approval and accountability: UE; Technical or material support: UE; Supervision: UE; Securing funding (if available): n/a.

Ethical Approval: Since this study is a letter to the editor, an ethical approval certificate is not required.

Peer-review: Editorial review.

Conflict of Interest: Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support

REFERENCES

1. Destan Bünül S. Long-term disability in multiple sclerosis: a longitudinal study over 20 years. *Cukurova Med J.* 2023;48:965-71.
2. Vercellino M, Masera S, Lorenzatti M, Condello C, Merola A, Mattioda A et al. Demyelination, inflammation, and neurodegeneration in multiple sclerosis deep gray matter. *J Neuropathol Exp Neurol.* 2009;68:489-502.
3. Kubsik-Gidlewska AM, Klimkiewicz P, Klimkiewicz R, Janczewska K, Woldanska-Okonska M. Rehabilitation in multiple sclerosis. *Adv Clin Exp Med.* 2017;26:709-15.
4. Tollar J, Nagy F, Toth BE, Török K, Szita K, Csutoras B et al. Exercise effects on multiple sclerosis quality of life and clinical-motor symptoms. *Med Sci Sports Exerc.* 2020;52:1007-14.
5. Gurpinar B, Kara B, Idiman E. Effects of aquatic exercises on postural control and hand function in multiple sclerosis: halliwick versus aquatic plyometric exercises: a randomised trial. *J Musculoskelet Neuronal Interact.* 2020;20:249-55.
6. Grazioli E, Tranchita E, Borriello G, Cerulli C, Minganti C, Parisi A. The effects of concurrent resistance and aerobic exercise training on functional status in patients with multiple sclerosis. *Curr Sports Med Rep.* 2019;18:452-7.
7. Banitalebi E, Ghahfarrokhi MM, Negaresh R, Kazemi A, Faramarzi M, Motl RW et al. Exercise improves neurotrophins in multiple sclerosis independent of disability status. *Mult Scler Relat Disord.* 2020;43:102143.