



## The Coexistence of Pain and Depression Could be as a Factor for Diagnosis of Multiple Sclerosis

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Multiple sclerosis (MS) is a disease where the immune system attacks the central nervous system (brain and spinal cord) and causes damage over time [1]. There are 28 million people who have MS, and the number of people with the disease has been increasing since 2013 [2]. In Iran, the rate of MS is highest in Tehran and lowest in Khuzestan and Sistan-Baluchestan provinces [3]. The prevalence of pain in multiple sclerosis patients is raging between 29% and 86% [4]. Moreover, the Prevalence of depression in MS is 24% to 50% [5].

Pain in multiple sclerosis (MS) has been linked to different factors like person's social and economic situation, their chronic disease, and mental health conditions [6]. Pain and depression are prevalent in newly diagnosed MS [7]. In particular, pain has been related to higher disability, depression, and fatigue [1]. According to a study, pain in MS is associated with more severe symptoms of anxiety and depression and worse quality of life [8].

It has been showed in a cohort study that different types of pain were closely connected to fatigue, depression, and disability.

This connection became even stronger after 4 years compared to the starting point [9]. All two symptoms (depression, and pain) have been linked to dysfunction of monoaminergic euro transmission in the central nervous system (CNS) inflammation [10]. Therefore, in MS patients, the simultaneous presence of pain and depression can help the initial diagnosis of MS. Because pain and depression are both very difficult to deal with, it is not surprising that people with multiple sclerosis who have both pain and depression, experience a combined negative effect on their mental health and overall their quality of life.

Therefore, improving MS patients can be earned through routine screenings of these symptoms, and also by expanding studies in the field of prevention and early interventional programs during this sensitive period after diagnosis that may be resulted in enhancing quality of life of patients.

#### References:

1. Ghajarzadeh M, Foroushani AR, Ghezlbash P, Ghoreishi A, Maghbooli M, Yousefi M, et al. Prevalence of multiple sclerosis (MS) in Zanjan province of Iran. Int J Prev Med. 2020; doi:10.4103/ijpvm.IJPVM\_419\_19.

2. Walton C, King R, Rechtman L, Kaye W, Leray E, Marrie RA, et al. Rising prevalence of multiple sclerosis worldwide: Insights from the Atlas of MS. *Multiple Sclerosis Journal*. 2020;26(14):1816-21.
3. Mirmosayyeb O, Shaygannejad V, Bagherieh S, Hosseinabadi AM, Ghajarzadeh M. Prevalence of multiple sclerosis (MS) in Iran: a systematic review and meta-analysis. *Neurol Sci*. 2022;43:233-41.
4. Urits I, Adamian L, Fiocchi J, Hoyt D, Ernst C, Kaye AD, et al. Advances in the understanding and management of chronic pain in multiple sclerosis: a comprehensive review. *Curr Pain Headache Rep*. 2019; 25;23(8):59.doi: 10.1007/s11916-019-0800-2 .
5. Marrie RA, Reingold S, Cohen J, Stuve O, Trojano M, Sorensen PS, et al. The incidence and prevalence of psychiatric disorders in multiple sclerosis: a systematic review. *Mult Scler*. 2015; 21(3): 305-317.
6. Marck CH, De Livera AM, Weiland TJ, Jelinek PL, Neate SL, Brown CR, et al. Pain in people with multiple sclerosis: associations with modifiable lifestyle factors, fatigue, depression, anxiety, and mental health quality of life. *Front Neurol*. 2017 Sep 5;8:461. doi: 10.3389/fneur.2017.00461
7. Valentine TR, Alschuler KN, Ehde DM, Kratz AL. Prevalence, co-occurrence, and trajectories of pain, fatigue, depression, and anxiety in the year following multiple sclerosis diagnosis. *Mult Scler*. 2022 Apr;28(4):620-631.
8. Łabuz-Roszak B, Niewiadomska E, Kubicka-Bączek K, Skrzypek M, Tyrpień-Golder K, Majewska A, et al. Prevalence of pain in patients with multiple sclerosis and its association with anxiety, depressive symptoms and quality of life. *Psychiatr Pol*. 2019;53(2):475-86.
9. Heitmann H, Haller B, Tiemann L, Mühlau M, Berthele A, Tölle TR, et al. Longitudinal prevalence and determinants of pain in multiple sclerosis: results from the German National Multiple Sclerosis Cohort study. *Pain*. 2020;161(4):787-96.
10. Solaro C, Gamberini G, Masuccio FG. Depression in multiple sclerosis: epidemiology, aetiology, diagnosis and treatment. *CNS drugs*. 2018;32(2):117-33. .