

DOES MS RELATED FATIGUE REFLECT A SLEEP DISORDER? YES

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Multiple sclerosis (MS) is a chronic inflammatory demyelinating and neurodegenerative disorder of the central nervous system (CNS) which may present with a large variety of neurological and neuropsychiatric symptoms. The disease predominantly affects young adults, the majority of them women in their child-bearing age. One of the most frequent symptoms is fatigue reported by 80% or more of people with MS. The most common definition is that of the *Multiple Sclerosis Council for Clinical Practice Guidelines* which defines fatigue as a “subjective lack of physical and/or mental energy that is perceived by the individual or caregiver to interfere with usual and desired activities”.

Fatigue may be the first presenting symptom of MS and may be the only indicator of an acute relapse. Moreover, many patients report fatigue as their most burdensome symptom, and fatigue is a major contributor to unemployment and exerts a negative impact on quality of life. Specific and successful treatment options are virtually absent to date. The occurrence and severity of fatigue have been associated with depression, cognitive deficits, side effects of medications, immunological changes related to the autoimmune nature of MS, and radiological features on magnetic resonance imaging. However, a clear cause has not been identified to date.

In recent years, the association of fatigue with sleep disorders has come into research focus. Several studies reported poor sleep in many MS patients for numerous reasons such as spasticity, pain, nocturia, and sleep related disorders such as restless-legs-syndrom (RLS), periodic limb movement disorder (PLMD), obstructive sleep apnea (OSA), and others. Some newer polysomnographic studies have shown a clear association of fatigue scores measured with broadly accepted questionnaires such as the *Fatigue Severity Scale* (FSS) or the *Modified Fatigue Impact Scale* (MFIS) with sleep disorders such as RLS, PLMD, OSA and others, and first evidence suggests that a specific and consequent treatment of a given sleep medical condition may substantially decrease fatigue scores at least in a subset of patients. This indicates that a relevant proportion of patients suffer from “secondary” fatigue caused or aggravated by an underlying sleep medical condition. The conclusion of these new insights is that every MS patients complaining of fatigue should be thoroughly investigated for the presence of a sleep disorder.

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