Prevalence Of Sleep Disorders In Multiple Sclerosis

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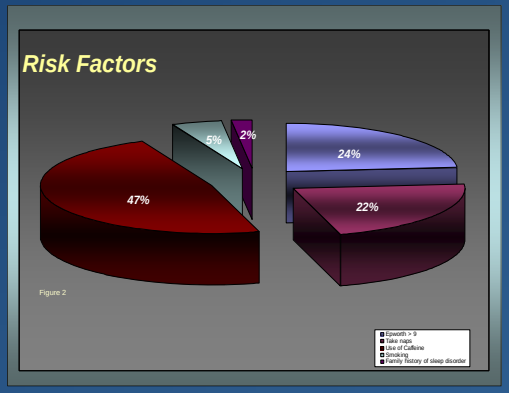
Introduction: The relationship between neurological diseases and sleep disorders is increasingly being recognized. The prevalence of sleep disorders in multiple sclerosis (MS) has not been well established. The most commonly reported sleep disorders seen in patients with MS include insomnia, nocturnal movement disorders, sleep-disordered breathing, narcolepsy, and rapid eye movement sleep behavior disorder. There are several factors that influence the quality of sleep in MS patients which include pain, nocturia, depression, medication effect, location of lesions, and disease severity.

It is well known that disrupted sleep and poor sleep quality can potentially cause daytime somnolence and increased fatigue. It may be associated with dangerous cardio-respiratory events. Awareness and treatment of these conditions is vital for improving health and quality of life in patients with MS.

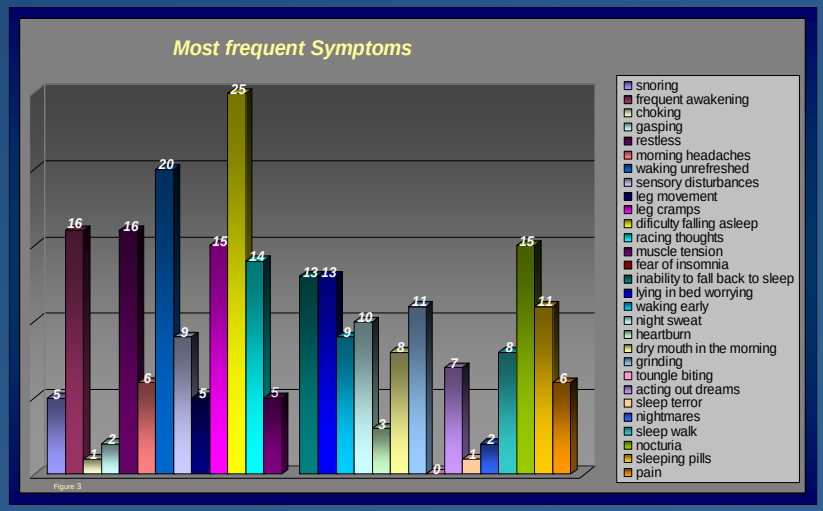
Objective: To determine the prevalence and identify the type of sleep disorders in MS patients.

Methods: A sleep disorder questionnaire which includes the Epworth sleepiness scale was given to consecutive MS patients (18 to 64 years old), during their follow up visit. Data includes age, gender, type of MS, date of diagnosis, use of tobacco, alcohol, sleeping habits, caffeine consumption and medical history. Current and previous treatments and other medical conditions that patients may have will be documented.
Patients who suffer from congestive heart failure, primary respiratory disorders like emphysema and obstructive respiratory disorders or any other neurodegenerative condition were excluded.

Table 1 Demographics	
Total of patients	65
men	11
women	54
Mean age	40
RRMS	65
Interferon treatment	49%
Natalizumab	23%
Glatiramer acetate	16%
other	6%
Currently untreated	6%



Results: A total of 65 patients have been included in this ongoing trial. Most of the patients were females with a mean age of 40. Demographic data is shown in table 1.
Thirteen patients had a concomitant diagnosis such as allergies and depression. Most of the patients were on interferon treatment (49%), 16% on glatiramer acetate, 22% on natalizumab. Four of our patients are on other treatment and 4 are not currently receiving any MS treatment (2 of them because of pregnancy).
Risk factors in our population associated with sleep disorders are represented in figure 2. The most common was the use of caffeine (most of the patients ingested one cup per day). Fatigue was a significant symptom in 43% of our patients. 37% of the patients had sleep disturbances based on Epworth scale of >9, of these 92 % had significant fatigue. The most commonly reported syndrome was difficulty falling asleep, followed by waking up unrefreshed. The rest of the symptoms are represented in figure 3.



Conclusion: In the general population insomnia is diagnosed in 6% to 15%. Sleep apnea syndrome, often associated with insomnia or daytime sleepiness, is found in approximately 2% to 4% of the general population. Restless legs syndrome (RLS) is present in approximately 6% with a higher prevalence in the elderly population. Previous studies have indicated that RLS is more common in MS, reported as high as 33.5%.

The prevalence of sleep disorders in our population was 37%. Fatigue was present in 92% of the patients with significant abnormal Epworth scale.

There are several factors that influence the quality of sleep in MS patients. Disrupted sleep and poor sleep quality can potentially cause daytime somnolence and increased fatigue. Awareness and treatment of these conditions is vital for improving health and quality of life in patients with MS.

These are preliminary results of an ongoing study. Future data will be further analyzed.

References
Seminars in neurology ISSN 0271-8235 CODEN SEMNEP 2005, vol. 25, no1, pp. 64-68
Buysse DJ, Reynolds CF, Kupfer DJ. The Pittsburgh sleep quality index: a new instrument for psychiatric practice and research, Psychiatry Res, 1989, May;28(2);193-213.
Alarcia R, Ara-Callizo J, Martin J, Lopez A, Bestue M, Bertol V, Vergara J.Sleep Disorders in Multiple Sclerosis.Neurologia 2004 12;19(10):704-709
Attarian HP, Brown KM, Duntley SP, Carter JD, Cross AH. The Relationship of Sleep Disturbances and Fatigue in Multiple Sclerosis. Arch Neurol 2004 Apr;61(4):525-8
Grayson, Charlotte, MD. Multiple Sclerosis:Taking Control of Your Zzzs. Mellen Center for Multiple Sclerosis Research at The Cleveland Clinic and WebMD.May 2004
G Suarez, J Pena, M Avila, G Hutton, VM Rivera. Frequency and severity of restless legs syndrome in multiple sclerosis: a population study from Southeast Texas., Neurology 2008, 70, 11S, A334.