Multiple sclerosis and involuntary movements

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Introduction: Movement disorders were considered uncommon in multiple sclerosis (MS), but tremor (action, postural) can be a highly disabling symptom (transient or persistent), as well as other involuntary movements.

Methods: We studied 130 patients (80 male and 50 female) with multiple sclerosis. 115 with relapsing remitting (RR-MS), 5 secondary progressive (SPMS) and 10 clinical isolated syndrome (CIS) treated and monitored in the Neurology Department of the Colentina Clinical Hospital. 76% aged 19-39 years, 84% having EDSS score 1-4, 16% EDSS 4.5-6.5. 25 patients were treated with Interferon beta-1a intramuscularly, 27 with Interferon beta-1a subcutaneously, 18 with Interferon beta-1b, 51 with glatiramer acetate and 9 with natalizumab. We performed a clinical examination, including finger to nose testing, drinking from a cup, 9 Hole–Peg test, writing/drawing, a questionnaire regarding concomitant treatments, comorbidities and movement disorders, Brain tremor severity scale and FAMS (Functional assessment of MS scale)

Results: The prevalence of tremor in our group was 31.53%, especially for action tremor of the upper limbs. 2.3% seemed to be linked to the specific immunomodulatory treatment. Other involuntary movements present were: Restless leg syndrome 3.84%, facial hemispasm 2.3%, ballism 0.76%, tics 3.07%, myoclonus 3.84%.

Conclusions: Movement disorders are not very rare in MS patients. The pathophysiology is various and so the treatments. Comorbidities and concomitant therapies precipitated involuntary movements, which were more frequent in women, 30-39 years of age, transient or permanent and correlated to the EDSS score. They disabling, causing psychological, social and economic problems.