

Impact of fatigue and depression on motor rehabilitation outcomes in progressive Multiple Sclerosis

Congiu M¹, Pisa M¹, Gelibter S¹, Fichera M¹, Comola M¹, Comi G¹, Leocani L¹

⁽¹⁾*Department of Neurology, INSPE-Institute of Experimental Neurology, University Hospital San Raffaele, Milan, Italy*

Introduction. Motor disability, depression and fatigue often coexist in people with progressive Multiple Sclerosis (PMS), with negative consequences on their quality of life. We explored the effect of pre-existing depressive symptoms on the outcome of intensive motor neurorehabilitation treatment in PMS.

Methods. Consecutive patients with PMS (40, 22 F, age 48.52± 8.18; EDSS 5.85 ± 0.58) entering our Neurorehabilitation department and participating in a randomized trial on repetitive TMS coupled with neurorehabilitation were recruited. They underwent testing with MS walking scale (MSWS); fatigue severity Scale (FSS); 6 minutes walking test (6MWT), numerical rating scale (NRS) for spasticity and pain, expanded disability status scale (EDSS), functional independence measure (FIM), 10 meter walk test (10MW), Beck depression inventory (BDI) and paced auditory serial addition test (PASAT), at baseline (T0) and at T3, after an intensive neurorehabilitation program twice a day, 5 days/week for 3 weeks.

Results. Patients with mild/severe depression at baseline (BDI > 14, n=11, 28%) significantly improved in fatigue (delta FSS 1.47±1.8 vs 0.16±9.7; p=0.036) and depression (delta BDI 9.4± 9.6vs 1.7±3.2; p=0.025). They also had a tendency to improvement at T3 in 6MWT (55.3± 70 vs 19± 31.7mt; p = 0.06), MSWS (35.2±34.7 vs 9.6± 21.2; p = 0.054). These measures did not significantly differ between the two groups at baseline.

Conclusions. We found a better improvement in fatigue and depression and a trend for motor and physical scales in people with MS with higher depression scores at the start of an intensive neurorehabilitation program. These data are consistent with the view that underlying depression may confound motor and fatigue measures and underline the importance to address psychological factors to enhance the positive outcome of rehabilitation treatment and its maintenance.

Disclosures:

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