

ASSESSMENT OF WALKING ABILITY AND DYNAMIC STANDING BALANCE IN MULTIPLE SCLEROSIS PATIENTS DURING INPATIENT REHABILITATION

L. Obradovic Bursac, D. Milojkovic, M. Sretovic, N. Jekovic, B. Totovic, M. Lakovic
Neurology, Special hospital for Rehabilitation "Gornja Trepcica", Serbia
drIldija.obradovic@gmail.com

Objective: The aim of this study is to investigate the impact of a short-term inpatient rehabilitation program on walking ability and dynamic standing balance in multiple sclerosis (MS).

Methods: Patients were admitted to the Special Hospital for Rehabilitation Gornja Trepcica for 3 weeks of inpatient rehabilitation. Inclusion criteria were the diagnosis of MS according to the 2005 Revised McDonald Diagnostic Criteria as well as a score of the Expanded Disability Status Scale (EDSS) of 4.0 to 6.5. Sixty six patients fulfilled inclusion criteria. The inpatient rehabilitation course consisted of an individualized rehabilitation program including physical therapy, kinesitherapy, and hydrotherapy. Walking ability test (6 min.Walk test- 6MWT) and test of dynamic standing balance (Four Square Step Test- FSST) were assessed at baseline and after treatment, and MSWS-12 (12-item MS Walking Scale) and BBS (Berg Balance Scale) was estimated only at baseline.

Results: Out of 66 patients, most (51%) had relapsing-remitting MS, mean age 41 ± 12 years, and the average duration of illness was 9.02 ± 7.64 years.. The mean EDSS at baseline was 4.7 (SD 1.0). In the group, the mean baseline MSWS-12 score was 35.6 (SD 28.3) and BBS score was 44.6 (SD 11.4). 6MWT was significantly improved after treatment ($p=0.001$). Statistical analysis, Student t test, it is determined that the obtained difference value in FSST scor before (15.6 ± 7.4) and after treatment(11.6 ± 5.5) was statistically highly significant (P 0.001)

Conclusion: Inpatient rehabilitation has a positive influence on walking ability and dynamic standing balance of MS patients.