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Clinical and vocational relevance of SDMT changes: 1-Year Follow-Up Results (Data) on the SDMT-PRO study population

Background:

Since cognitive problems may occur early in multiple sclerosis (MS) regular assessment of the cognitive status is recommended. The Symbol Digit Modalities Test (SDMT) is a validated, sensitive, widely used instrument to detect changes in cognitive processing speed and working memory and is part of BICAMS, the most widely used screening battery for neuropsychological deficits in multiple sclerosis (MS). A clinically meaningful change is actually defined as an 8-points difference in SDMT raw score (Weinstock et.al 2021) or a 10% difference with respect to pretest values (Benedict et.al. 2017). The second essential part of the BICAMS is the Brief Visuospatial Memory Test Revised (BVMT-R). The combined application of these two tests has proven to be superior to the single application of the SDMT and showed the best agreement with the overall BICAMS score (Bätge et al. 2019). Whether and to which extent a clinically meaningful change in SDMT and BVMT-R translates into a relevant change in the every day and vocational functioning of patients has not been thoroughly investigated so far.

Aim:

SDMT-PRO aims to evaluate the relevance of SDMT and BVMT-R changes on everyday life issues of patients with relapsing (RRMS) and secondary progressive MS (SPMS).

Methods:

In total, 157 ambulatory RRMS and SPMS patients have been enrolled in the ongoing project. Patients' neuropsychological performance on SDMT and BVMT-R has been and will be assessed at baseline (T0), at 12 (T12) and 24 months (T24) follow-up, along with behavioral data collected from digitized patient-reported outcomes (PROs) by the PatientConceptApp at the respective time points. PROs are represented by fatigue (Fatigue Scale for Motor and Cognitive Functions/FSMC), mood (Hospital Anxiety and Depression Scale/HADS), vocational status (Work Productivity and Activity Impairment Questionnaire/WPAI) and quality of life (Multiple Sclerosis Impact Scale/MSIS 29). In addition, each of the PRO core dimensions (vocational status, fatigue, mood, cognition) will be continuously monitored throughout the study via the app by means of short ratings based on Visual Analog Scales (VAS).

Results:

Recently presented baseline characteristics from the SDMT-PRO study population demonstrated that cognitive and mood deficits, fatigue and quality of life impairments are highly prevalent in both patient populations but even more pronounced in SPMS patients. The present analysis will focus on 1-year-follow-up data from the SDMT-PRO cohort and elucidate how changes in cognitive function and fatigue may impact real-world quality of life and vocational status.

Discussion and Conclusion:

Our study will provide further insights in how SDMT and BVMT-R changes translate into daily living and psychosocial functioning of patients with MS. We will hereby shed light on the ecological validity of changes in neuropsychological test results.

425 Wörter (500 sind erlaubt)