The relation between the SDMT, fatigue, depression, and anxiety symptoms in a Belgian MS cohort.

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Abstract:

Background

Multiple sclerosis (MS) is associated with high prevalence of cognitive impairment, ranging from 40% to 80% of patients. The purpose of this single-center study was to examine the relation between cognitive functioning, fatigue, anxiety and depression symptoms in a Belgian cohort of patients with MS.

Methods

From the MS functional outcome database prospectively accumulated in our center, we extracted the following data: sociodemographic and disease-related, information processing speed as part of cognitive functioning assessed with the oral version of SDMT, depression and anxiety with the Hospital Anxiety and Depression scale (HAD), fatigue with the French valid version of the fatigue impact scale in MS (EMIF-SEP), which is a scale composed of four dimensions (cognitive, physical, social and psychological) for the evaluation of fatigue. When at least 2 time-point scores were available for each patient, the most recent data were included in the study.

Results

SDMT, EMIF-SEP and HAD scores were available for 66 patients (F:40, M:26). The multivariate linear regression analysis demonstrated that lower SDMT scores were associated with higher EDSS score, age at examination, and psychological dimension of fatigue symptoms. No association were found between SDMT and anxiety or depression symptoms. Conversely, higher depression and anxiety were associated with higher total fatigue symptoms, but lower physical dimension of fatigue. Higher anxiety was also independently associated with higher social dimension of fatigue symptoms.

Conclusion

The existence of impairment in information processing speed, with fatigue, anxiety and/or depression symptoms, can concur together for devastating consequences on MS disability. The level of disability and fatigue adversely affects the cognitive functioning, whereas depression and anxiety seem to not have a significant effect. A more complex relationship exists between fatigue and neuropsychiatric symptoms, with a divergent interplay between the different dimensions of fatigue that supports the multidimensional approach to assessing fatigue in MS.