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Mild cognitive impairment in relapsing-remitting multiple sclerosis

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Background

Cognitive dysfunction is common in multiple sclerosis (MS) and occurs in up to 65% of patients. Memory, attention, executive constructive functions are particularly impaired in the relapsing-remitting (RRMS) form of the disease.

Materials and methods

Case-control prospective study conducted in a clinical setting.

To investigate the cognitive functions of RRMS we carried out a neuropsychological evaluation of 31 patients with clinically definite RRMS. Thirty individually pair-matched healthy controls with similar socio-demographic attributes were also evaluated. Selection criteria for patients included a minimum of general physical (EDSS < 3, I.A.D.L) and mental (M.M.S.E) ability. In addition, screening for possible depression (Hamilton scale), was performed. Neuropsychological tests which were performed for the overall evaluation of cognitive impairment included a battery specifically designed for MS and the STROOP test.

Results

RRMS patients performed worse than controls in most of the cognitive tests employed, particularly the Selective Reminding Test, Spatial Recall Test, Paced Auditory Serial Addition Test, STROOP (p<.05, controlling for multiple comparisons). Performance was generally inversely linked with disease duration, after controlling for age. No significant impact of other extraneous or intrinsic factors was detected.

Conclusions

RRMS patients performed within the mildly impaired range. Cognitive decline correlated with illness duration. This study emphasizes the importance of cognitive examination in clinical practice among MS patients. It may therefore be suggested that a complete neurological examination should include tests on memory and abstract reasoning.