Training of attention in patients with remitting-relapsing multiple sclerosis

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🕮 *ABSTRACT*. L'obiettivo dello studio è quello di cercare un metodo per rallentare o meglio ancora recuperare il deficit di concentrazione e di attenzione divisa in soggetti con sclerosa multipla. Il gruppo sperimentale, costituito da 13 soggetti, è stato sottoposto per tre settimane a tre sedute di riabilitazione con il sistema computerizzato ERICA, mentre quello di controllo, formato da 7 soggetti, ha svolto solo delle prove carta e matita. I risultati dello studio hanno evidenziato un netto miglioramento di queste funzioni nel gruppo sperimentale dimostrando il successo di questo tipo di riabilitazione con questi pazienti.

🕮 *SUMMARY. Introduction:* Multiple sclerosis is a progressive neurodegenerative disease, which causes early disability and a decreasing quality of life. One of the symptoms of MS is cognitive impairments, such as the deficit of concentration and divided attention. A method must be found to slow down the progress of cognitive dysfunctions or even recover them. *Methods*. A randomized controlled study was performed on hospitalized patients with remitting-relapsing multiple sclerosis. The Leiter-3 test was used to measure their attention level and with results of this test we selected patients with moderate attention decline. The levels of depression and executive functioning as well as the presence of other neurological diseases, age, duration of illness, dominant hand, medicines prescribed, motor and visual abilities were controlled. Thirteen patients were included in the experimental group, where we used ERICA for experimental impact, while the control group, which consisted of seven people, was asked to complete paper and pencil tasks. The groups trained 40 minutes daily for three weeks. *Results*. At the end of the study we discovered, that the experimental group had shown a great improvement. The control group had also shown some improvement, which can be explained by the effect of steroid therapy, combined with paper and pencil tasks, but their results were much lower and significantly different from experimental group. *Conclusions*. It is possible to conclude that the use of computer based rehabilitation programs, like ERICA, is effective in the treatment of cognitive impairments in multiple sclerosis, and drug therapy should be combined with it for better results.

Keywords: *cognitive rehabilitation, multiple sclerosis*

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INTRODUCTION

Multiple sclerosis is an inflammatory autoimmune disease of the nervous system, characterized by multiple lesions in the brain and spinal cord. It is a chronic disease in its early stages and in most cases, has remitting nature, but after a while it often becomes progressive (Compston, 2008). Multiple sclerosis is one of the most common neurological diseases that cause disability