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Computer-based cognitive training for early stage AD

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Computer assisted cognitive rehabilitation seem to be a promising area of intervention and data available support the hypothesis that computerized techniques can improve cognitive performances in AD patients..

We aimed to verify the efficacy of computer based cognitive training with TNP software in early stage AD patients through a single blind randomized controlled study. Participants were diagnosed with probable AD and they had mild cognitive decline. Twelve patients were randomly assigned treatment or control condition. They attended 12 individual 45 minute sessions of training. Subjects assigned to the specific treatment (a) were administered a program of computer exercises selected from the TNP software. The non-specific treatment condition (b) was designed to balance as far as possible the specific treatment. Primary outcome of the study was a better performance of the specific treatment group in global or specific functions cognitive tests at the post-treatment evaluation sessions. Neuropsychological tests mean scores at pre-treatment (T0) were compared with those collected at post-treatment (T1), and at the 3 and 9-month follow-up (T2 and T3). Variance analysis showed a significant decrease of mean MMSE scores at the 9-month follow-up only for the non-specific treatment group.

Preliminary data of our study show that the mean MMSE score of patients who underwent non-specific treatment decreased significantly at the 9-month follow-up, whereas the mean MMSE score of patients who underwent the specific treatment remained stable over time. Our computer training seems effective at least in delaying the continuous progression of cognitive impairment in AD.

Biography

Emanuela Galante has a degree in psychology (University of Padova, 1994) and a post-graduate degree in health psychology (2005).

She works as neuropsychologist (since 1995) and psychotherapist at Salvatore Maugeri Foundation I.R.C.C.S. Scientific Institute of Castel Goffredo (MN)

She has worked as Investigator in two multi-centre pharmacological trials for the efficacy of cholinesterase inhibitors in Alzheimer's Disease patients (1996, 1998).

She has published 14 papers on dementia and cognitive rehabilitation.

She has been member of: The Eptastigmine Study Group (1999) and the Dementia Study Group of the Italian Neurological Society (2000). Guidelines for the diagnosis of dementia and Alzheimer's Disease

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