

NEUROPSYCHOLOGICAL DOMAINS SENSITIVE TO CONVERSION OF DEMENTIA IN NON-DEMENTED PATIENTS WITH PARKINSON'S DISEASE

Sang-Myung Cheon¹, Su-Yun Lee¹, Jae Woo Kim¹, Hye-Mi Jeong²

¹Neurology, Dong-A University School of Medicine, South Korea

²Family Medicine, Sharing and Happiness Hospital, South Korea

smcheon@dau.ac.kr

Backgrounds and objectives; Dementia is one of the most disabling symptoms in patients with Parkinson's disease (PD). The aims of this study were to investigate the neuropsychological and mild cognitive impairment (MCI) subtypes related to conversion of dementia in non-demented PD and PD-MCI patients.

Methods; PD patients taken comprehensive neuropsychological test were recruited from outpatient clinic of referral hospital. PD with dementia (PDD) was defined according to the DSM-4 and PD-MCI by impaired performance on at least one of five cognitive domains. Five tests (forward digit span, Boston Naming Test, Rey Complex Figure, Seoul Verbal Learning Test and phonemic word test) were chosen as a baseline assessment to represent five cognitive domains; attention, language, visuospatial, memory and frontal/executive functions. Those tests were compared between PDD converters and non-converters in non-demented and PD-MCI patients.

Results; Total 476 patients were recruited. Among them, 41 patients had become PDD converters and they showed older age at onset, lower education level and MMSE score, and higher MCI frequency. Dysfunction in the domains of language, visuospatial and memory were more prevalent in PDD converters at baseline. Among 205 PD-MCI patients, 27 PD-MCI patients converted to PDD, and they showed poor performance in visuospatial function.

Conclusions; Visuospatial function was found to be a most sensitive domain to PDD conversion in non-demented patients with PD. This finding suggests that the performance of posterior cortical function would be more related to conversion of dementia in patients with PD.