성인읽기검사를 통한 병전 인지예비능의 평가

Dahyun Yi, PhD[1], Eun Hyun Seo, PhD[2], Ji Young Han, MA[1], Bo Kyung Sohn, MD[3], Min Soo Byun, MD, PhD[1], Jun Ho Lee, MD[1], Young Min Choe[4], MD, Suzy Ahn, MA[6], Jong Inn Woo, MD, PhD[1], Jongho Jun, PhD[5] & Dong Young Lee, MD, PhD[1]

1 Department of Neuropsychiatry, Seoul National University Hospital, Seoul, South Korea
2 Premedical Science, College of Medicine, Chosun University, Gwangju, South Korea
3 Department of Neuropsychiatry, Seoul Metropolitan Government-Seoul National University Boramae Medical Center, Seoul, South Korea
4 Department of Neuropsychiatry, Ulsan University Hospital, Ulsan, South Korea
5 Department of Linguistic, Seoul National University, Seoul, South Korea
6 Department of Linguistic, New York University, NY, USA

성인 읽기 검사 개발 연구 초록:

We aimed to develop a word-reading test for Korean-speaking adults using irregularly pronounced words that would be useful in estimation of premorbid intelligence. A linguist specialized in Korean phonology selected 94 words with irregular relationship between orthography to phonology. Sixty cognitively normal elderly (CN) and 31 patients with Alzheimer's disease (AD) were asked to read out loud the words and also were administered the Wechsler Adult Intelligence Scale, 4th edition, Korean version (K-WAIS-IV). Among the 94 words, 50 words that did not show a significant difference between the CNc and the AD group were selected and constituted the KART. Using the 30 CN calculation group (CNc), a linear regression equation was obtained in which the observed full-scale IQ (FSIQ) was

regressed on the reading errors of the KART including education as an additional variable. When the regressed equation computed from the CNc was applied to the 30 CN validation group (CNv), the predicted FSIQ adequately fit the observed FSIQ (R^2=0.63). In addition, independent sample *t*-test showed that the KART-predicted IQs were not significantly different between CNv and AD groups, whereas the performance of the AD groups were significantly worse in the observed IQs. In addition, an extended validation of the KART was performed with a separate sample consisted of 84 CN, 56 elderly with mild cognitive impairment (MCI), and 43 AD patients who were administered comprehensive neuropsychological assessments in addition to the KART. When the equation from the CNc was applied to the extended validation sample, the KART-predicted IQs of the AD, MCI and the CN groups did not significantly differ, whereas their current global cognition scores significantly differed between the groups. In conclusion, these results support the validity of KART-predicted IQ as an index of premorbid IQ in individuals with AD.