

quality tools and will inform our development of a new person-centred social connection measurement tool for LTC residents in the Social Connection in Long-Term Care Home Residents (SONNET) study.

P71: Predicting amyloid- β deposition status in amnesic mild cognitive impairment using neuropsychological profiles.

Authors: Hyunji Lee, M.D.¹, Young Min Lee, M.D., Ph.D.^{1,2}, Je-Min Park, M.D., Ph.D.^{1,2}, Byung-Dae Lee, M.D., Ph.D.^{1,2}, Eunsoo Moon, M.D., Ph.D.^{1,2}, Hwagyu Suh, M.D., Ph.D.^{1,2}, Kyungwon Kim, M.D., Ph.D.^{1,2}, Yoo Jun Kim, M.D.¹

¹ Department of Psychiatry, Pusan National University School of Medicine, Busan, Korea ² Biomedical Research Institute, Pusan National University Hospital, Busan, Korea

*Correspondence to : Dr. Young Min Lee, Department of Psychiatry, Pusan National University School of Medicine, 179 Gudeok-Ro, Seo-Gu, Busan, Korea, 49241

Objective: Previous studies investigating neuropsychological profiles of cognitive impairment people have found a learning curve can be a useful indicator of AD diagnosis or progression. However, the data on the relationship between amyloid β ($A\beta$) deposition status and the learning curve in amnesic mild cognitive impairment (aMCI) are limited. In this study, we investigate the role of the learning curve in predicting $A\beta$ deposition status in patients with aMCI.

Methods: This is a cross-sectional study of 67 aMCI patients (N = 67; 33 aMCI with amyloid positive ($A\beta$ -PET (+)), and 34 aMCI with amyloid negative ($A\beta$ -PET (-))). All participants underwent Seoul Neuropsychological Screening Battery for a comprehensive neuropsychological test battery and brain MRI. To determine $A\beta$ deposition status, each participant underwent amyloid PET scans using 18F-florbetaben. The learning curve was obtained using immediate recall of Seoul Verbal Learning Test-learning curve (SVLT-learning curve). The association of cognitive test scores and dichotomized $A\beta$ deposition status was examined using logistic regression models in patients with aMCI. Receiver operating characteristic (ROC) curves were used to examine the predictive ability of cognitive test to detect $A\beta$ deposition status in aMCI.

Results: Logistic regression models showed that SVLT-learning curve and Rey Complex Figure Test- delayed recall (RCFT-delayed recall) scores were significantly associated with $A\beta$ deposition status. In ROC analysis to assess the predictive power, SVLT-learning curve (area under the curve (AUC) = 0.734, P = 0.001) and RCFT-delayed recall (AUC = 0.739, P = 0.001) independently discriminated $A\beta$ -PET (+) and $A\beta$ -PET (-). The combination of these clinical markers (SVLT-learning curve and RCFT-delayed recall) improved the predictive accuracy of $A\beta$ -PET (+) (AUC = 0.833, P < 0.001).

Conclusions: Our findings of association of $A\beta$ deposition status with SVLT-learning curve and RCFT- delayed recall suggest that these cognitive tests could be a useful screening tool for $A\beta$ deposition status among aMCI patients in resource-limited clinics.