**Authors:** Sisu Seong[1], Hyewon Kim[2], Min-Ji Kim [3], Hong Jin Jeon[4,5,*], Gyu Ha Ryu[5*]

[1] Department of Medical Device Management and Research, SAIHST, Sungkyunkwan University, Seoul 06351, Korea
[2] Department of Psychiatry, Hanyang University Hospital, Seoul, South Korea.
[3] Biomedical Statistics Center, Research Institute for Future Medicine, Samsung Medical Center, Seoul, South Korea
[4] Department of Psychiatry, Depression Center, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea
[5] Department of Health Sciences & Technology, Department of Medical Device Management & Research, and Department of Clinical Research Design & Evaluation, Samsung Advanced Institute for Health Sciences & Technology (SAIHST), Sungkyunkwan University, Seoul, South Korea
[5] Department of Medical Device Management and Research, SAIHST, Sungkyunkwan University, Seoul 06351, Korea
[*]Corresponding authors: Gyu Ha Ryu, Ph.D., Hong Jin Jeon, M.D., Ph.D.† Equal contributors

**Objective:** Although various clinical indicators of suicide have been recorded, the previous suicide attempt is meaningful as one of the most robust risk factors predicting subsequent suicide attempts but there are lacking in biomarkers for evaluating suicide attempts. This study aimed to analyze the correlation of changes in oxygenated hemoglobin concentration with lifetime suicide attempt during verbal fluency test.

**Method:** A total of 60 patients with major depressive disorder (MDD) were enrolled. Demographic, clinical, physical, and psychological evaluations were conducted. We evaluated the suicidal behaviors through MINI suicidality item. We indicated verbal fluency test to examine prefrontal activation during the cognitive execution while fNIRS was observed.

**Results:** 54 of enrolled patient with MDD (23 those with a lifetime history of suicide attempt; 31 those without a lifetime history of suicide attempt) are eligible for the subject. The patients were 35.19% of those with a lifetime history of suicide attempt. The values of the changes in oxygenated hemoglobin involving the entire regions of prefrontal cortex were smaller in those with a lifetime history of suicide attempt. The biggest difference is in right VMPFC, the mean score of those with a lifetime history of suicide attempt and those without a lifetime history of suicide attempt were 0.095(SD, 1.032) and 0.610(SD, 1.038) although the statistically non-significance. We discovered that a small value of changes in oxygenated hemoglobin was related to lifetime suicide attempt through multivariable logistic regression analysis. After adjusting for age, sex, years of education, and HAMD, there was a significant difference in the right VMPFC [OR = 0.491(95% CI=0.235~0.916), p = 0.036].

**Conclusions:** Study result indicated that the values of the changes in oxygenated hemoglobin were smaller in who attempted suicide before during cognitive execution. The adjusted regression analysis was presented significant result in right VMPFC. Therefore, the changes in oxygenated hemoglobin measured by fNIRS can be applied as a biomarker for suicidal behavior such as lifetime suicide attempt.

## P187: A patient with early-onset Alzheimer's disease presenting with a unique form of Capgras syndrome

**Authors**: Takeda Kayo[1) 3) 5)], Suzuki Maki[2)], Hikida Sakura[1)], Yuto Satake[1)], Kazumi Hirayama[4)], Etsuro Mori[2) 3)], Manabu Ikeda[1) 3)]



https://doi.org/10.1017/S1041610223002776 Published online by Cambridge University Press

１） Department of Psychiatry, Osaka University Graduate School of Medicine
２） Department of Behavioral Neurology and Neuropsychiatry, Osaka University United Graduate School of Child Development
３） Department of Psychiatry, Nippon Life Hospital
４） Yamagata Prefectural University of Health Sciences
５） Department of Psychiatry, Asakayama General Hospital

**Background:** Capgras syndrome is a delusion in which the patient believes that a particular individual has been replaced by an imposter. It is observed in patients with psychiatric disorders such as schizophrenia but also occurs in patients with a neurodegenerative disease including Lewy body disease and Alzheimer's disease. Here we report a patient with early-onset Alzheimer's disease who presented with a unique form of Capgras syndrome.

**Case presentation:** An early 60's right-handed woman with 12 years of education, visited our outpatient clinic for evaluation of her memory impairment. Neurological examination was not remarkable. A MMSE score was 25/30 and a neuropsychological examination indicated mild impairment of attention and episodic memory, and relatively preserved visuospatial function. Six months after the initial visit of our clinic, she started to claim that she met several imposters of her husband. She called each imposter in different name, described each as a slightly different appearance, and expressed different level of sense of familiarity. An additional examination of face recognition using photographs of her husband revealed that there was a difficult to recognize her husband especially viewed from the side of his face. In addition, she showed a difficulty in discriminating between two different unknown faces and in judging approximate age of face in photographs. Brain MRI showed no significant atrophy and IMP-SPECT showed an extensive hypoperfusion in the bilateral, right-side dominant temporal, parietal, and occipital lobes. Both FP-CIT SPECT and MIBG scintigraphy were negative. Florbetapir PET was positive. Thus, a diagnosis of early-onset Alzheimer's disease was made. Acetylcholinesterase inhibitors and antipsychotics were used to treat her Capgras syndrome, but the symptom lasted for more than a year.

**Discussion:** There are several possible factors that may induced patient's unique Capgras syndrome: (1) psychodynamic background- the patient and her husband had been in a long-term common-law relationship; (2) mild impairment in face recognition; (3) dysfunction of right hemisphere, which is known to be strongly related to Capgras syndrome. The combination of these factors may result in the occurrence of multiple imposters of her husband with different degrees of familiarity.

## P189: TELEMATIC CONTROL OF BEHAVIORAL DISORDERS IN PATIENTS WITH DEMENTIA

**Authors:** Tatiana Calderón Prieto, Mercedes Fernández, Estel Vall-llosera

**Objective:** We want to assess the use of a telematics tool against the ordinary follow-up in consultations in the control of Behavioral and Psichological Symptoms of Dementia (BPSD) in a group of patients with dementia.

**Methods**: A randomized prospective clinical study with two parallel intervention groups Unicentro of the Geriatrics service of the General Hospital of Hospitalet (CSI).



https://doi.org/10.1017/S1041610223002776 Published online by Cambridge University Press