



Nagoya City University Academic Repository

学位の種類	博士（医学）
報告番号	甲第1431号
学位記番号	第1036号
氏名	阪野 公一
授与年月日	平成 26 年 3 月 25 日
学位論文の題名	Neural basis of three dimensions of agitated behaviors in patients with Alzheimer disease (アルツハイマー病患者における焦燥的行動の3因子の神経基盤) Neuropsychiatric Disease and Treatment (in Press)
論文審査担当者	主査： 松川 則之 副査： 道川 誠, 明智 龍男

Neural basis of three dimensions of agitated behaviors in patients with Alzheimer disease

Background: Agitated behaviors are frequently observed in patients with Alzheimer disease (AD). The neural substrate underlying the agitated behaviors in dementia is unclear. We hypothesized that different dimensions of agitated behaviors are mediated by distinct neural systems.

Methods: All the patients (n=32) underwent single photon emission computed tomography (SPECT). Using the Agitated Behavior in Dementia scale, we identified the relationships between regional cerebral blood flow (rCBF) patterns and the presence of each of three dimensions of agitated behavior (physically agitated behavior, verbally agitated behavior, and psychosis symptoms) in AD patients. Statistical parametric mapping (SPM) software was used to explore these neural correlations.

Results: Physically agitated behavior was significantly correlated with lower rCBF values in the right superior temporal gyrus (Brodmann 22) and the right inferior frontal gyrus (Brodmann 47). Verbally agitated behavior was significantly associated with lower rCBF values in the left inferior frontal gyrus (Brodmann 46, 44) and the left insula (Brodmann 13). The psychosis symptoms were significantly correlated with lower rCBF values in the right angular gyrus (Brodmann 39) and the right occipital lobe

(Brodmann 19).

Conclusion: Our results support the hypothesis that three different agitated behaviors may represent distinct neural systems in AD patients.

Keywords: physically agitated behavior, verbally agitated behavior, psychosis, SPECT