

Aggressive behavior in prodromal phases of Alzheimer's disease: a case series

L. Abate¹, M. Pardini¹, D. Massucco¹, D. Sassos¹, C. Scialò¹, L. Emberti Gialloreti², L. Cocito¹

¹University of Genova, Dept of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health, Genoa

²Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Via Montpellier 1, 00133 Rome, Italy

Introduction: Non-cognitive neuropsychiatric symptoms (NPS) of dementia including aggressiveness, affect dementia patients nearly universally across dementia stages and etiologies. Aggressive behavior has traditionally been classified into two distinct subtypes: an affective, impulsive aggressive display or a planned, predatory aggressive act.

Case report: Three subjects come to our observation for subjective memory impairment. Performance on cognitive assessments, including fluency test, Mini-Mental State Examination (MMSE), Frontal Assessment Battery (FAB) and clock drawing test, was within normal limits. All the subjects were married and had children; one subject was a lawyer and the other were retired. Age range was 65 to 70 years and level of education at least 14 years.

Follow-up: After six months, they developed NPS such as irritability and then impulsive aggressiveness. Two subjects manifested aggressive verbalizations towards their children and the other had verbal aggressiveness towards his wife. Atypical antipsychotic were used without benefit. MRI showed hippocampus atrophy and CSF biomarkers were suggestive to Alzheimer's disease (AD). At the end of one year follow-up period all the patients presented difficulty on recall at MMSE while FAB were normal.

Discussion and Conclusions: NPS are currently known to manifest commonly in very early and in prodromal phases of dementia, usually frontotemporal dementia (FDT). Although AD is usually considered a cognitive disorder, almost all people diagnosed with AD develop these symptoms at some stage during their disease. The cases presented here point to the need to consider AD in the work-up of late onset aggressive behaviors.

Stanford MS, Houston RJ, Mathias CW, Villemarette-Pittman NR, Helfritz LE, Conklin SM. Characterizing aggressive behavior. *Assessment*. 2003 Jun;10(2):183-90.

Lyketsos CG, Carrillo MC, Ryan JM, Khachaturian AS, Trzepacz P, Amatniek J, Cedarbaum J, Brashear R, Miller DS. Neuropsychiatric symptoms in Alzheimer's disease. *Alzheimers Dement*. 2011 Sep;7(5):532-9.

Kales HC¹, Gitlin LN, Lyketsos CG; Detroit Expert Panel on Assessment and Management of Neuropsychiatric Symptoms of Dementia. Management of neuropsychiatric symptoms of dementia in clinical settings: recommendations from a multidisciplinary expert panel. *J Am Geriatr Soc*. 2014 Apr;62(4):762-9.