

EARLY ONSET DEMENTIA IN MODENA: PRELIMINARY EPIDEMIOLOGIC DATA

G. Vinceti^{1,4}, C.Galli^{2,3}, C. Vincenzi^{1,4}, A. Chiari¹, M. Vinceti⁴, C. Salvia⁴, M. Costa⁵, A. Fabbo⁶, G. Zamboni⁴, P. Nichelli^{1,4}, M. Tondelli^{4,6}

¹ Neurology Clinic, Nuovo Ospedale Civile S. Agostino Estense, Modena, ² Mental Health Department, AUSL Modena, ³ Department of Neural science, Psychology, Drugs area and Children Health (NEUROFARBA), University of Firenze, Italy, ⁴ Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Italy, ⁵ Neurology Clinic, Ramazzini Hospital, Carpi, AUSL Modena, ⁶ Primary Care Department, AUSL Modena

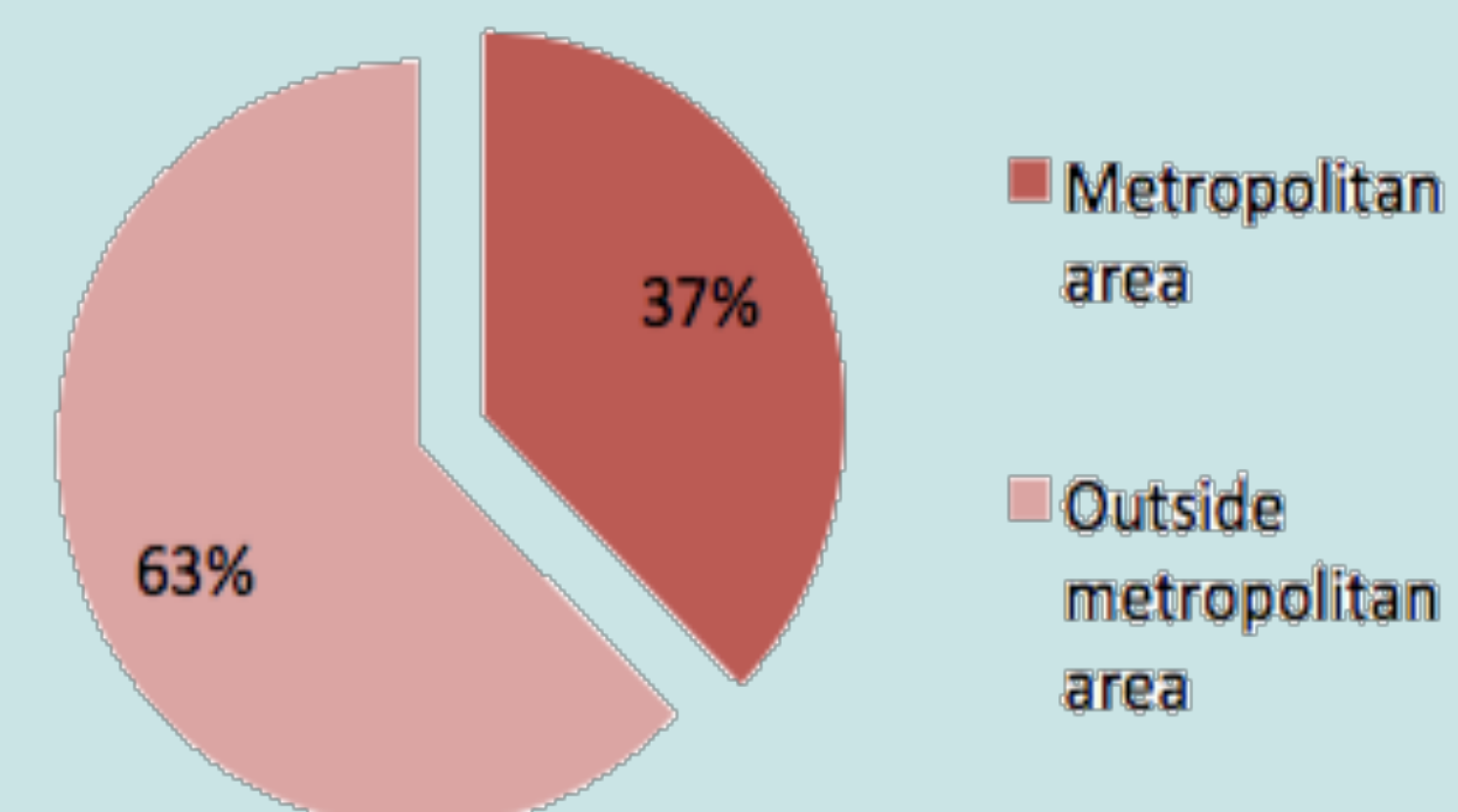
Aims of the study. Early onset dementia (EOD), defined as onset of dementia <65 years, has a significant social impact compared to the more common late onset dementia (LOD). EOD epidemiologic data in Italy are scarce, and international estimates of prevalence (age 45-65) are considerably variable, ranging between 15.1 and 153/100,000. We present preliminary retrospective data from an ongoing study aimed at establishing EOD epidemiology in a Northern Italy community (Modena province, around 700,000 inhabitants), using information from the dementia care service.

Materials. We retrospectively recruited all patients residing in Modena province referred to the Baggiovara Hospital Neurologic Clinic CDCD (Centro disturbi cognitivi e demenze) by family practitioners and geriatricians of Modena province, diagnosed with EOD from 2012 to 2016. EOD was diagnosed in patients <65 years presenting with cognitive/behavioral symptoms after a comprehensive neurological examination by a cognitive neurologist, performing brain MRI, FDG PET scanning and CSF analysis when necessary.

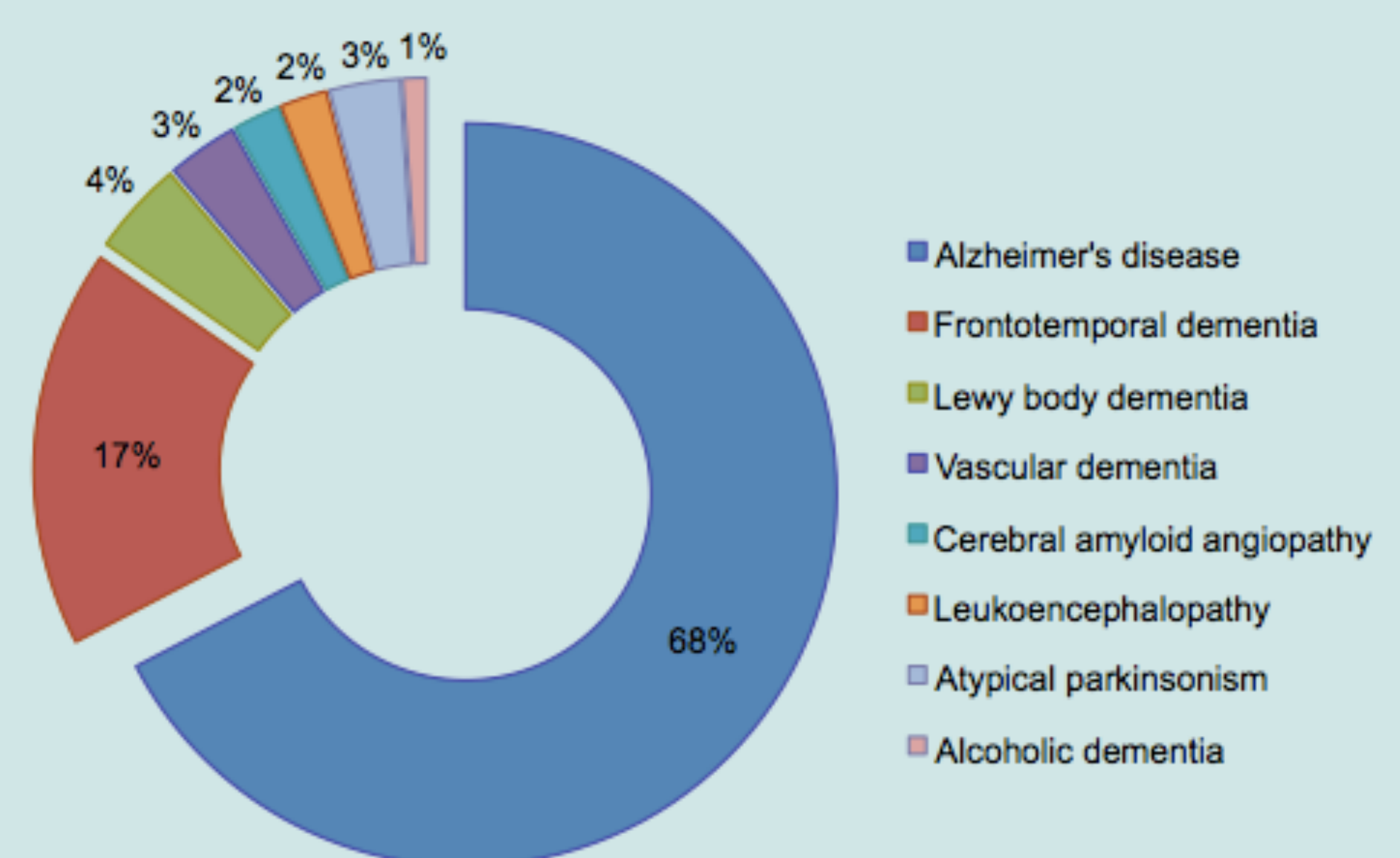
Methods. We collected clinical data such as age at onset, disease severity at time of diagnosis, time delay from onset to diagnosis, and epidemiologic data including residence and occupational status.

Results. We identified 99 patients with an EOD diagnosis from 2012 to 2016. Of these, 45 are males (45.4%). Mean onset age was 58.2 years. Median time from symptoms onset to diagnosis was 2 years. Mean MMSE score at diagnosis was 22.3/30. Thirty six patients were working at time of diagnosis (38.7%), and had to quit working due to the cognitive impairment. Two patients (2.1%) had young children (<18) at time of diagnosis.

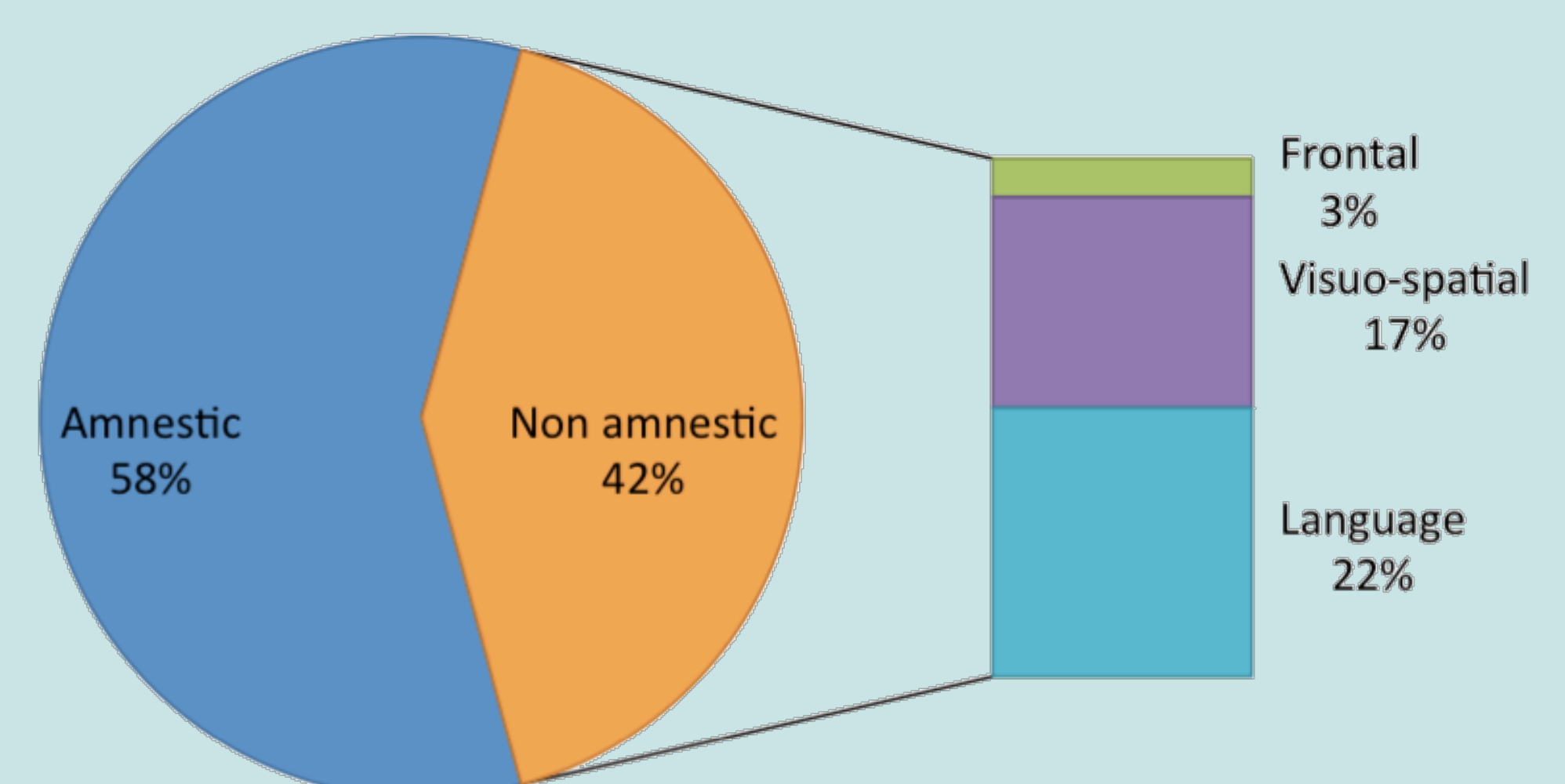
Discussion. Our data show peculiar AD phenotypes in the EOD group compared to LOD, with a higher percentage of non-amnestic presentation compared to the percentages known for the LOD group in the literature. Also, in our EOD group the number of AD with Down syndrome, CAA and leucoencephalopathies cases were probably underestimated due to referral bias. Time between clinical onset and diagnosis needs to be shortened. From a social perspective, EOD has significant impacts on patients and their families: patients are generally forced to leave work, and their children are expected to need psychological support, currently not routinely available.



Patients' residence



Clinical diagnosis: 66 patients had Alzheimer's disease (AD), 17 fronto-temporal dementia, 4 Lewy body dementia, 4 atypical parkinsonism, 2 Cerebral amyloid angiopathy (CAA), and 2 leukoencephalopathy.



AD phenotypes: among AD cases, 2 had a frontal, 14 a language presentation and 11 a visuospatial presentation of the disease. 3 cases were AD in Down Syndrome.

Conclusions. Our population study will provide data regarding EOD Italian epidemiology and social impact, with a more complete identification of all EOD cases, as well as more effective and appropriate care of the disease.

1. Lambert, M. A., Bickel, H., Prince, M., Fratiglioni L., Von Strauss, E., Frydecka D., Kienja, A., Georges, J. & Reynish, E. L. 2014. Estimating the burden of early onset dementia; systematic review of disease prevalence. *Eur J Neurol*, 21, 563-9.