Does the prevalence of different clinical variants of early onset dementia increase with age in people younger than 65? Data from an epidemiology study in Modena province, Italy

S. Salemme[1,2], G. Vinceti[1,2], G. Adani[2], M. Tondelli[1,2,3], C. Galli[3], C. Carbone[1,2], L. Fiondella[1,2], T. Filippini[1], M. Vinceti[1], A. Chiari[2], G. Zamboni[1,2]

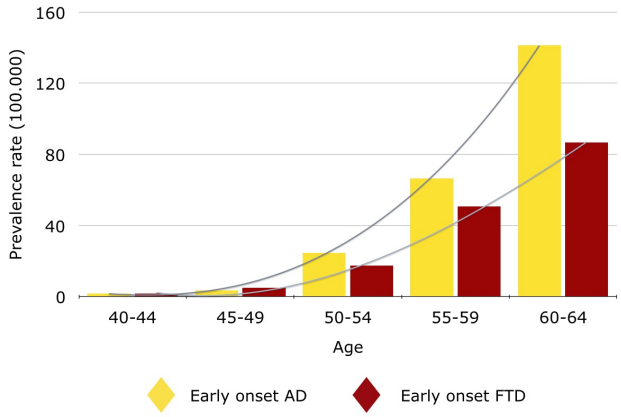
[1]Dipartimento di Scienze Biomediche, Metaboliche e Neuroscienze, Università di Modena e Reggio Emilia, Italy
[2]Neurologia, AOU di Modena, Italy
[3]Dipartimento di Cure Primarie, AUSL Modena, Italy

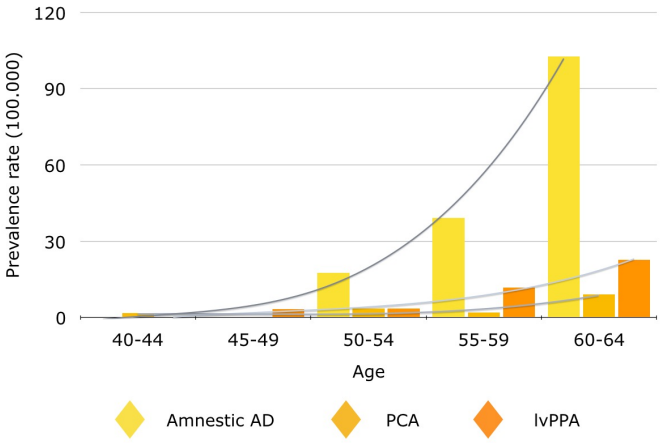
Background: Early onset dementia (EOD) has significant impact on patients and families. In a recent epidemiological study[1] conducted in the province of Modena, Italy, we reported that the most frequent EOD in persons aged 30-64 years was the amnestic variant of Alzheimer's Disease (AD), followed by the behavioral variant of frontotemporal dementia (FTD). Previous studies have shown that ageing increases prevalence of AD even in patients younger than 65. However, it is not known whether different variants of AD and other causes of EOD are equally affected by ageing. Here we studied prevalence of the different clinical variants of EOD by age group.

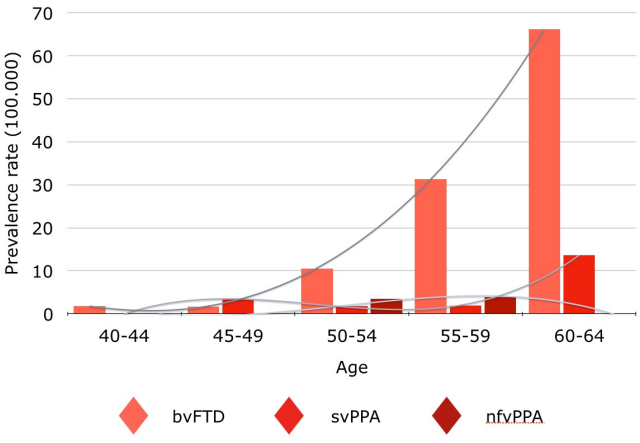
Methods: We identified all EOD patients seen in the network of dementia services of the Modena province, from 2006 to 2019. We included all patients with a diagnosis of dementia with symptom onset before age 65 alive on census date. We stratified them according to their age group and computed crude and sex-adjusted prevalence rates.

Results: Prevalence of all AD showed a nearly exponential growth ranging from 1.8/100,000 in the 40-44 age group to 141.4/100,000 in the 59-64 group. Among AD variants, prevalence of the amnestic variant was the most influenced by the age, increasing from 17.5/100,000 in the 40-44 group to 102.6/100,000 in the 59-64 group, while prevalence of posterior cortical atrophy (PCA) and logopenic variant of primary progressive aphasia (lvPPA) showed a less steep growth curve. Prevalence of all FTD increased linearly from 1.8/100,000 in the 40-44 group to 86.6/100,000 in the 59-64 group, with such increase being all driven by the behavioral variant (bvFTD), which increased from 1.8/100,000 to 66.1/100,00. Non-fluent and semantic variants of PPA (nfv- and sv-PPA) did not increase with age, although an association with age may have been underestimated by their low frequency.

Discussion: In patients younger than 65, prevalence rates of amnestic AD and bvFTD increase with ageing, while other clinical variants of AD and FTD does not seem to show that pattern. These results contribute to a better understanding of the different clinical variants of EOD and their risk factors.







Bibliography
[1] Chiari A., Vinceti G., Adani G., et al. Epidemiology of early onset dementia and its clinical presentations in the province of Modena, Italy. *Alzheimers Dement 2021;* Jan;17(1):81-88.

For further information: simone.salemme93@gmail.com
Feel free to contact: giovanna.zamboni@unimore.it | chiari.annalisa@aou.mo.it