

Epidemiological impact of Alzheimer's disease and other dementias in the Spanish-Portuguese border region

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Abstract

Background: Dementia has reached epidemic proportions and become a huge Public Health problem. Alzheimer's disease (AD) is the most common type of dementia. In Spain, more than 800,000 people suffer from AD (*Spanish Society of Neurology-SEN*). Age is the main risk marker for developing this disease. Its prevalence is three times higher in women than in men due to females' higher life expectancy. The aim is to know the epidemiological profile and quantify the current scope of the AD and other dementias in the rural Spanish-Portuguese border area, one of the most depopulated and aging regions in Europe.

Method: A cross-sectional descriptive study was designed to estimate the prevalence of persons diagnosed with an ICD-9-CM or ICD-10 code diagnosis of dementia in ten Basic Health Areas of the cross-border rural area of province of Salamanca, Spain, during June-July 2020 (39,354 inhabitants). The cases were recorded from the *Electronic Clinical Record of Primary Care (MEDORA)* by the Regional Health Management of Castilla y León.

Result: A total of 579 individuals suffer some type of dementia in the Spanish-Portuguese border region, with a predominance of females (70%) vs. males (30%), and an age range of 38 to 109 years (Figure_1). AD was diagnosed in 307(53%) persons and other dementias in 272(47%). Gender distribution of the diagnoses is different in women and men ($p < 0.001$) (Table_1). The mean(\pm SD) age was 85.2 ± 7.6 years for women and 82.5 ± 8.7 years for men ($p < 0.001$). The mean(\pm SD) age of Alzheimer's patients was lower, 83.7 ± 7.1 vs. 85.2 ± 8.9 ($p = 0.031$) (Figure_2). The global prevalence of dementia was 1.47 per 100 inhabitants (0.78% in AD vs. 0.69% in other dementias). The prevalence of dementia was 2.12% in females and 0.85% in males. Prevalence range in the ten Basic Health Areas: from 2.98 (*La-Alberca*) to 0.77 (*Tamames*) per 100 inhabitants. 26.4% of people with AD and other dementias in this region were institutionalized.

Conclusion: The prevalence data obtained confirm that AD and other dementias must be considered a public health problem in the rural Spanish-Portuguese border region that represents a significant deterioration in the quality of life (QoL) in patients and their families.

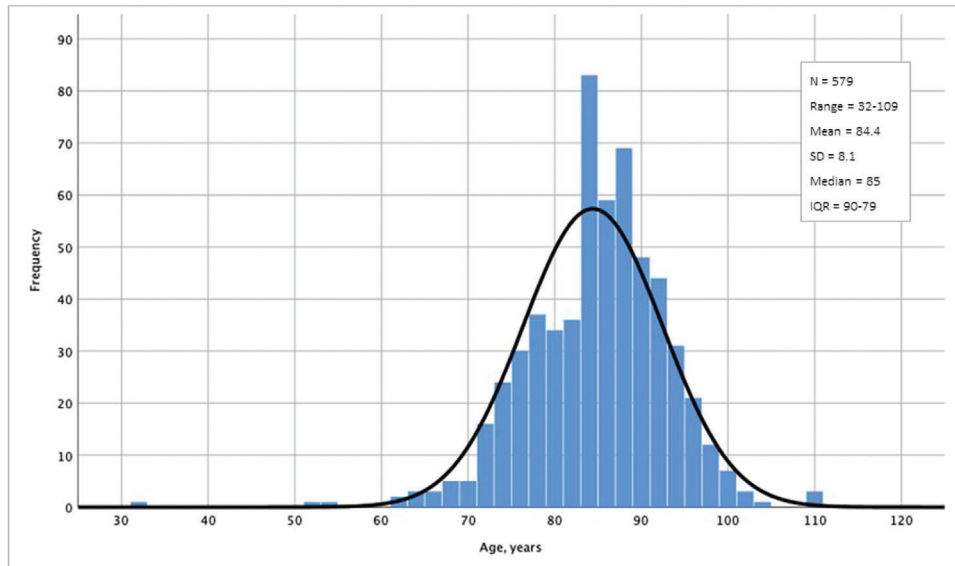


Figure 1. Age histogram of persons diagnosed of Alzheimer's disease and other dementias in the Spanish-Portuguese border region.

FIGURE 1

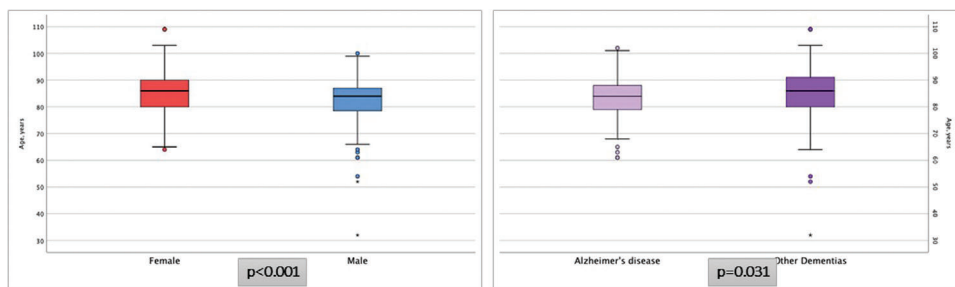


Figure 2. Age comparative box-plots: a) female vs. male; b) persons diagnosed of Alzheimer's disease vs. other dementias.

FIGURE 2

TABLE 1

Table 1. Gender distribution of the diagnoses.				
ICD-9-CM code		Total (N=579) n (%)	Women (N1=407) n (%)	Men (N1=172) n (%)
331.0	Alzheimer's disease	307 (53.0)	227 (55.8)	80 (46.5)
331.83	Mild cognitive impairment	145 (25.0)	90 (22.1)	55 (32.0)
290.0	Senile dementia, uncomplicated	94 (16.2)	74 (18.2)	20 (11.6)
290.40	Vascular dementia, uncomplicated	29 (5.0)	16 (3.9)	13 (7.6)
291.2	Alcohol-induced persisting dementia	3 (0.5)	-	3 (1.7)
046.1	Jakob-creutzfeldt disease	1 (0.2)	-	1 (0.6)