

Is Alzheimer's Disease a New Pandemic? Its Impact on Health

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Dementia is a chronic disease with decline in memory, thinking and behavior; progressive and irreversible, affecting the activities of daily living and quality of life. Alzheimer's disease (AD) accounts for 60 to 70% of dementia and in USA is estimated that 13% of people over age 65 are affected [1].

Similar data were reported in other countries: in Spain the prevalence of dementia, AD and vascular dementia amounted to 7.6%, 4.6% and 1.8%, respectively (Toledo Study) [2]. In Mexico more than 850,000 people (1% of the general population) (10.7 per 1,000 per year) are affected by the disease, and die from it each year approximately 2,030 patients (4.5% among those over 60 years) [3]. These figures do not match reality. The current numbers are unknown, so we can say the disease is under-diagnosed [4].

The International Alzheimer's Association estimates that 44 million of people are living with dementia worldwide, and that these statistics will increase to 66 million by 2030, and 115 million by 2050 [5].

The AD is considered as a major cause of dependence of people and is called "the epidemic of the century", it is among the first six conditions listed by the World Health Organization as a priority in mental health [6].

Psychological and behavioral symptoms (PBS) in dementia have a high frequency in AD, suggesting that they are part of the physiopathology of the own dementia syndrome. Changes in functioning of cortical and subcortical areas (frontal and temporal) would be related to the most behavioral manifestations of the disease [7]. The PBS includes symptoms caused by disorders of perception, thought content, mood or behavior. The onset of these symptoms is manifested through significant changes in behavior and the state of

mood. Patients show changes in personality, irritability, anxiety or depression; hallucinations, delusions, aggression and wanderings, developed in the early and middle stages of the disease [8].

The prevalence of psychotic symptoms in patients with dementia is about 66%, the most frequent is the persecutory delusions and one of its main features is that it can trigger episodes of verbal or physical aggression directed toward family and /or caregivers [9].

The anxiety is expressed by incessant questions regarding the events that will come and a marked fear of being alone. The apathy includes loss of initiative and interest in daily activities and the reduction of emotional reactivity in social interaction. It is important to note that violent behaviors are those that produce more stress on caregivers and further reach compromise of patient quality of life [10].

The presence of PBS emphasizes the deterioration of patients while increasing the burden on caregivers, promoting premature institutionalization, so evaluation and treatment are essential to the welfare of the patient and caregivers [7].

Neuropsychiatric manifestations of AD are common in clinical practice and are often associated with a syndromatic manner. For proper management it is essential a correct characterization of the behavior-problem and identification of the causal mechanism. After discarding an underlying cause, it is advisable to treat antisocial behavior in first place. At the beginning, it is suggested to test non-pharmacological measures and then drugs with better efficacy and safety profile, selected according to the most relevant clinical symptom [11].

People with AD in the early stages of the disease may experience

irritability, anxiety and depression; in final stages may have other symptoms such as sleep disturbances, verbal or physical outbursts, anxiety, nervousness, delusions and hallucinations. Psychiatric and behavioral symptoms may be caused by a variety of factors called triggers, some ear infectious processes, urinary tract, among others, as well as side effects of some medications, some circumstances that cause stress such as change of residence and/or caregiver. Identifying the causes helps to select the best intervention [12].

Both delusions and hallucinations become more frequent as progressing disease. There are several studies that agree that the most common symptoms in advanced stages, such as agitation, aggression and wandering are also the most persistent over time. The psychopathological exam may be supplemented by the use of evaluation instruments [13].

The association between the frequency of behavioral problems and their impact on caregivers is high, especially in the social restrictions of caregivers and the impact they have on the caregiver [14].

The perception of caregivers about behavioral problems is associated with the increasing burden of care. Research in the area of behavioral problems and burden in AD are very important for the primary care physician.

Regarding psychological and behavioral problems in the Neuropsychiatric Inventory the anxiety, apathy or indifference, delusions, disinhibition, irritability and depression prevailed among other symptoms commonly observed. In a study of Spain, the most common symptoms were apathy, depression, anxiety and emotional lability [9]. In patients with dementia, severity of symptoms was moderate, it means that the changes are significant but not dramatic and the caregiver distress was also moderate, so it's stressful and not always easy to handle.

Knowledge of PBS can help caregivers seeking support from family, and friends and formal services, so they can lessen the burden

Additional negative outcomes for caregivers, such as depression and physical illness can occur, so it contributes to premature placement of patients with dementia in nursing homes, and all this leads to higher costs of health care.

Health systems are not prepared to deal with this global problem except some countries which already are taking measures such as creating of specialized centers, preparation of medical and paramedical staff, inclusion of the subject in the curricula of medical schools, mass information the community, etc.

Educating the general public about Alzheimer's and behavioral manifestations of the disease can reduce the burden. A better

understanding of the causes and effects of burden, can lead to interventions that reduce their impact. The effectiveness of clinical interventions based on evidence can increase significantly if the behavioral problems are properly evaluated, and treated.

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