

# Dementia versus Alzheimer's Disease



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## Abstract

We may think that Alzheimer's and dementia are simply unlike words for the same illness, on the other hand they aren't. The main difference between them Alzheimer's is a disease while dementia is a collection of symptoms which occur once the brain cells stop working well. Dementia is the umbrella term that includes a group of symptoms for the people suffering from various brain disorders such as their memory, language and thinking. On the other hand, Alzheimer's disease is the most abundant brain disorders in addition to, the most common cause of dementia. About 850,000 people in the UK suffer from dementia, nearly 500,000 of them diagnosed as Alzheimer's patients. In attendance is great confusion between "dementia" and "Alzheimer's disease." This confusion is stroked the part of patients, family members, the media, and even health care providers. The goal of this article is to diminish confusion by describing these two common and unwell understood expressions.

**Keywords:** Alzheimer's disease; AD; Dementia; Stem cell

## Introduction

Dementia is a wide-ranging category of brain diseases, it isn't a specific disease which causes diminution in the ability to think and remember [1].

Alzheimer's is a chronic neurodegenerative disease in which the brain cells die and this causes memory loss and

cognitive decline, more than five million Americans suffer from Alzheimer's, and it is the seventh cause of death in the U.S. [2].

The symptoms of both dementia and Alzheimer vary according to types and stages of the diagnosis. These symptoms are summarizing in Table 1 [3].

**Table 1:** Symptoms in dementia & Alzheimer.

Dementia	Alzheimer
a) Balance problems	a) Impairments in remember new information
b) Tremor	b) Impairments to reasoning, complex tasking, exercising judgment
c) Speech and language difficulty	c) Impaired visuospatial abilities
d) Memory distortions	d) Impaired speaking, reading and writing
e) Wandering or restlessness	e) Changes in personality and behavior
f) Perception and visual problems	
g) Agitation	
h) Depression	
i) Anxiety	
j) Abnormal motor behavior	
k) Elated mood	
l) Irritability	
m) Apathy	
n) Disinhibition and impulsivity	
o) Changes in sleep or appetite.	

Dementia includes damage of nerve cells in the brain, which may occur in numerous areas of the brain [4]. Causes of dementia includes: vitamin deficiencies; damage to the vessels that supply blood to brain due to stroke, or any other conditions; presence of lewy bodies; Huntington's disease; Traumatic brain injury; Creutzfeldt-Jakob disease; Parkinson's disease; Exposure to heavy metals; Brain tumors; and Anoxia [5].

A number of these causes are reversible, as thyroid diseases or vitamin deficiencies. If these problems are treated then the dementia reverses and the person can return to normal state. On the other hand, most causes of dementia are not reversible [6]. On the other hand; causes of Alzheimer may be genetic heritability, reduced synthesis of the neurotransmitter acetylcholine [7]. A diagnosis of dementia needs that at least two core mental functions are impaired adequate to interfere with daily living. They are included: memory, language skills, ability to focus and pay attention, ability to reason and problem-solve, and visual perception [8].

There is no single test can used in diagnose of dementia. Diagnosis tests included: Cognitive and neuropsychological tests which contain testes for measure thinking skills; Neurological evaluation which evaluate senses, language, memory, and balance; Brain scans such as CT, MRI, and PET scans. In addition to blood tests which included vitamin B-12, thyroid gland tests, inflammation or markers [9].

Alzheimer's disease is generally diagnosed based on the person's medical history, and behavioral observations. The occurrence of characteristic neurological and neuropsychological features and the absence of alternative conditions are helpful. Also, CT, MRI, SPECT, and PET can be used to help in diagnosis of Alzheimer's disease; Psychological tests for depression are in employment, as depression can either be synchronized with AD [10].

Most types of dementia can't be cured. Dementia can be manage through some medications which include: Cholinesterase inhibitors, Memantine. Also, decreasing confusion and noise can make it easier for dementia patients to focus and function. Dietary supplements, herbal remedies may be beneficial such as vitamin E, Omega-3 fatty acids, and Ginkgo [11]. There is no cure for Alzheimer's disease. Current treatments can be divided into pharmaceutical, psychosocial and care giving [12].

There are five medications are now used to treat AD: four are acetyl cholinesterase inhibitors (tacrine, rivastigmine, galantamine and donepezil) and the other (memantine) which is an NMDA receptor antagonist [13]. Psychosocial interventions are used as an aide-de-camp to medications treatment and can be classified into behavior-, emotion-, cognition- or stimulation-oriented approaches [14].

As Alzheimer's has no cure and it gradually condenses ability of people tending for their own needs, care giving is principally

the treatment [15]. Throughout the early and moderate stages, variations to the living environment and lifestyle can increase patient safety and reduce caretaker burden. By way of the disease progresses, different medical issues can appear, such as oral and dental disease, pressure ulcers, malnutrition, hygiene problems, or respiratory, skin, or eye infections. Through the final stages of the disease, treatment is centered on relieving discomfort until death, often with the help of hospice [16].

There is no cure for AD. In terms of drug therapy, presented drugs can only improve cognitive symptoms in the short term. No drug treatment can reverse, stop, or even slow this process. There are different strategies in AD treatment; there are some disadvantages for these strategies. Currently, Preclinical studies recommend that stem cells have potential effect in the treatment of AD. Various researchers' success in treatment of AD in transgenic mouse models in more than 50 different ways [17].

### Conclusion

There are differences between dementia, and Alzheimer disease. Various technique used in treatment of both diseases. Stem cell therapy success in treatment of AD. MSC- therapy has been the steadiest and has reached human clinical trials. Until now, one of these trials was negative but there are many others underway.

### Competing Interests

The authors declare that they have no competing interests.

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