



Alzheimer Disease: A Review

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ABSTRACT:

Alzheimer's disease (AD) is a progressive neurodegenerative disease. It is characterized by progressive dementia as well as declining daily activities and behavioral changes. This is the most common type of pre-dementia and emotional instability. According to World Health Organization (WHO), 5% of men and 6% of women over 60 are affected by Alzheimer's disease all around the world. The clinical manifestation of Alzheimer's disease (AD) is dementia, which usually begins in secret and is unknown memory loss and gradually becomes more severe and, eventually, inability to work. The currently available drugs are acetylcholinesterase inhibitors (rivastigmine, galantamine, donepezil) and N-methyl d-aspartate receptor antagonist (memantine) has a small effect on the disease and regulates the later stages of the disease. These drugs reduce the progression of the disease, provide relief from symptoms but fail to find a sure solution. Although neuropathological features of Alzheimer's disease it is noticeable but the complexity of the method has not been well defined. This is missing understanding about the pathogenic process may be a possible reason for the lack of effective treatment that can prevent the onset and progression of the disease. Due to significant advances in the field of pathophysiology over the past few years, new therapeutic goals are being developed that should make the basic disease process a reality directly considered. Understanding the level of information related to Alzheimer's disease can help disease management leading to improved disease control and reduced care costs. This article attempts to focus on some of the most important recent developments in understanding and management of Alzheimer's disease.

KEY WORDS: Alzheimer's, Management, Diagnosis, treatment.

INTRODUCTION:

Alois Alzheimer primarily described Alzheimer's disease (AD) in 1906 as progressive and neurodegenerative disorder. Neurodegenerative disorders are one of the most important problems with the modern health care system, and Alzheimer's disease is one of them. Identified as a ubiquitous method of dementia among older people from the very beginning early twenty-first century 1. Alzheimer's the most common cause of dementia, worldwide usually makes up about 60-80% in all cases of dementia 2, and it is characterized by progressive loss of neurons, brain functions and cognitive function 3. Alois Alzheimer and Auguste D The German psychiatrist and neuropathology's Dr. Alois Alzheimer is credited with describing for the first time a dementing condition which later became known as AD. In his landmark 1906 conference lecture and a subsequent 1907 article, Alzheimer described the case of Auguste D, a 51-year-old woman with a 'peculiar disease of the cerebral cortex,' who had presented with progressive memory and language impairment, disorientation, behavioral symptoms (hallucinations, delusions, paranoia), and psychosocial impairment. [1,2]

Normal memory

In order to understand the complexities of dementia, it is necessary to describe what happens in normal ageing and understanding what can go wrong and gives rise to abnormal conditions such as dementia. Ageing can be distinguished in terms of biological, social and psychological disciplines, but there is often a great overlap and interaction between them. For example, a physical change such as arthritis can limit mobility, which in turn can reduce Memory function has been recognized as follows Short-term and long-term memory Temporary memory, now elaborated on the concept of working memory, [3] system which allows a person to remember a new phone number while dialling it, as long as the person is not disturbed. Long-term memory allows a person to remember a normal phone number each day and year after year. Epidemiology of AD AD is a serious public health problem in the United States and many other countries around the world in the world, which has a huge health, social, and financial burden on society. Approximately 5 millions of Americans have AD, with new diagnoses performed every 68 sec. 8 United States States, AD are the fifth leading cause of death among the elderly, with approximately \$ 200 billion spent annually on direct care of people living with dementia. Worldwide, it is estimated that that 35 million people have AD or other forms of dementia, and about 65 million people have it is expected to have dementia by 2030 (115 million by 2050). AD is a multi factorial disease, unknown to one cause, and a few risk factors that can be adjusted and unchanged are associated with its development and progression. Age is what it is the most dangerous aspect of AD development. The chances of having AD increase extremely older, almost twice every 5 years after age 65. [4-5] Great Most people with AD are 65 or older and 'start late' or 'sporadic' AD (95% of all cases). A rare genetic mutation is associated with development of AD before age 65, known as 'early onset' or 'family AD' (B5% all cases). [6] People with family types of AD have significant autosomal variability in both one of the genes of presently found in chromosome 1 and 14 or in amyloid Pathology The pathological sign of Alzheimer's disease is the presence of Amyloid plaques as well Neurofibrillary tangles (NFT). There is diffuse atrophy of the

cerebral cortex and secondary expansion of the ventricles. Deposits are found mainly in the hippocampus, the temporal cortex and the nucleus basalis of Meynert. There is a loss of neurons due to pathological changes leading to reduced levels of neurotransmitters especially acetylcholine-induced brain shortage in these patients. The underlying pathological cause of Alzheimer's disease is not fully understood and numerous research is being done to determine the underlying pathological process. Right now understanding the many hypotheses expressed by the pathogenesis of AD. In general what is acceptable among them is, - Amyloid Cascade Hypothesis- Tau Hypothesis- Mitochondrial Cascade Hypothesis Amyloid Cascade Hypothesis This is a widely accepted theory. A β 42 insertion - amyloid plaque in The brain is considered a basic pathology. A β 42 is derived from Amyloid Precursor Protein (APP) by the subsequent action of β -secretase and γ -secretase. A β 42 does not melt again it involves the formation of plaques that cause oxidative damage and initiate .Stages of Alzheimer's disease Each person with Alzheimer's disease will differ slightly from presentation according to kindness. Emotional, moral, and psychological changes will also vary, but often adopted by doctors and researchers is a more detailed stage model features. [7] In the first stage, the 'forgetfulness phase', it is often difficult to remember the latter events, as well as the tendency to forget where things are placed. Names of people as well places, previously known, may not remember well and general confusion continues short-term memory loss. [8] The second known category is known as the 'confusion phase'. The poor are getting worse attention span and a decrease in normal mental function are indicated by memory impairment. Confusion in place, difficulty finding names and other changes speech may be noticeable. [8] Complex tasks are performed hard, sometimes in a strange or wrong way and often the skills one learns will eventually be lost first. Lack of interest in news as well the environment follows quickly and can be very stressful for the family as well friends. [9] The third stage, the 'dementia phase', is characterized by a lack of purpose in the person behavior that seems uncoordinated and sometimes bizarre. The remaining mental and self-care skills need to be constantly monitored as people at this stage move forward impaired memory capacity, dyscalculia, and language features they are deeply affected and eventually lost. Continued help is needed for self-care skills such as grooming, dressing, going to the toilet and feeding. Continuous physical wasting and see what it means to help with the journey. Sometimes one or two years of life will be the same follow in the form of almost vegetation until death. Environmental factors may also play a role initiating Alzheimer's disease in people who are easily infected. Relationships between Alzheimer's disease and aluminum have been built for several years.[10]

CONCLUSION AND FUTURE CRITERIA:

Alzheimer's disease is progressing the most common neurodegenerative disease soon all over the world. Because of its weight Pathology, variable and unexplained symptoms diagnosis of current therapies such as acetyl cholinesterase inhibitors (tacrine, donepezil, rivastigmine, galantamine) and glutamate the opponent (memantine) only gives a token relaxation and moderate efficiency, so there is no solution for you they exist to this day. Lately, something has changed an increase occurs in knowledge about AD The etiology and its basic pathophysiological process for research in this field to be more extensive scope and your solution is not yet visible. Today many studies are being done to find out AD solution. Recently there has been a variety promising investigations are still ongoing new opportunities as drugs targeted at the amyloid- β in different ways. More yet Ongoing approaches to AD research are similar to α secretase promoters, γ -secretase inhibitors, β secretase inhibitors, immunotherapy (anti-amyloid immune system), etc. So, in the coming years, with many important developments in the novel medical agents will empower us to provide comprehensive and unique pharmacotherapy for Alzheimer's disease

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