Alzheimer's Disease

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Introduction

Alzheimer’s Disease is the most common form of dementia and can cause problems with memory, thinking, and behavior. It is the sixth leading cause of mortality in the United States and risk factors include age, family history, genetics and new research even shows factors that we have control over. Alzheimer’s Disease has gained a lot of attention and about ninety percent of mortality in the United States and risk factors include age, family history, genetics and new research even shows factors that we have control over. (Alzheimer’s Association, 2017)

Underlying Pathophysiology

Even though Alzheimer’s disease is an irreversible brain disorder and usually occurs with advanced age it is not a normal part of aging. This disease is named after Dr. Alois Alzheimer who in 1906 noticed changes in the brain tissue of a woman who died of an unusual mental illness (National Institute on Aging, 2017). Once this woman died Dr. Alzheimer examined her brain and found abnormal clumps and tangled bundles of fibers. Alzheimer’s Disease (AD) is a progressive type of dementia that involves two hallmarks: extracellular amyloid plaques and intracellular neurofibrillary tangles. Amyloid plaques consist of protein beta amyloid which produces amyloid precursor protein. These amyloid plaques are believed to interfere with the brain’s synaptic activity which cause neuron dysfunction and cell death. Neurofibrillary tangles consist of the protein tau, that maintains the structure of the nerve cell, and when phosphorylation happens it prevents this protein from working effectively. Brain inflammation and oxidative stress are also characteristic in Alzheimer’s Disease (Alzheimer’s Association, 2017).

Who is at risk?

The greatest known risk factor for Alzheimer’s is advancing age. A majority of other cases occur due to a combination of hereditary and genetics (Alzheimer’s Association, 2017). Two other possible precursors are diabetes, which is linked to Alzheimer’s disease as it impacts the brain’s blood vessels, and hypertension, which has been found to raise the risk of dementia (Fargo, K.N., 2014).

Signs & Symptoms

The signs and symptoms of Alzheimer’s disease can vary based on each patient and how far their disease has progressed. The classic symptoms of this disease are listed below and some symptoms on lists are stated above.

1. Memory loss that disrupts daily life
2. Challenges in planning or solving problems
3. Difficulty completing tasks at home/work
4. Confusion with time and place
5. Trouble understanding visual images and spatial relationships
6. Problems with speaking or writing
7. Misplacing things
8. Poor judgment
9. Withdrawal from work or social activities
10. Changes in mood or personality

Implications for Nursing Care

1. In 9 people ages 65 and older are diagnosed with Alzheimer’s disease, three of every seven people ages 85 and older have Alzheimer’s disease. The number of people affected by Alzheimer’s disease is projected to triple by 2050 (Warshaw & Bragg, 2014, p.633).
2. Early Stage of Alzheimer’s will focus on diagnosis support and management at home. Patients usually present to their primary care providers to be evaluated for several weekly visits involving nurses, social workers, neurologists, geriatrician and psychiatrist (Warshaw & Bragg, 2014, p.634).
3. In the middle stage of Alzheimer’s nurses will notice increase symptoms and patients may need around-the-clock supervision due to cognitive or functional limitations. Caregivers may begin to see changes in the patients’ personality and mood.
4. The last stage nurses will notice progressive cognitive decline and extensive damage to the brain. It is crucial that nurses are helping patients in this stage also support family members in making difficult decisions about levels and type of care provided.

Brain Cross-Sections

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