

## 21. RISK FACTORS FOR DEMENTIA IN ALZHEIMER'S DISEASE



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**Introduction.** Alzheimer's disease is a progressive disorder that triggers brain regression and cell death in the cerebral cortex. Dementia in Alzheimer's disease presents one of the most widespread causes, making up about 50-60% of the total types of dementia. The incidence clinically diagnosed and reported in research ranges from 2.0 to 16.8 new cases of Alzheimer's disease per 1000 people for Europe, USA, China, Japan, and according to the World Health Organization, dementia has been declared a priority health problem.

**Aim of study.** Study of risk factors in the onset of dementia in Alzheimer's disease and their evaluation in the early development of the disease.

**Methods and materials.** The bibliographic analysis was carried out by synthesizing the international publications from the specialized literature, using the databases PubMed, Google Academic, Medline, the ResearchGATE network, MedScape.

**Results.** Age is the main risk factor, with the risk doubling every 5 years after age 65. Both genetic and environmental factors contribute to the phenomenon of family aggregation. In addition, some studies suggest that familial aggregation of Alzheimer's disease may be explained by genetic components such as the E4 allele, apolipoprotein E, being the only established genetic factor for dementia in both early-onset and late-onset Alzheimer's disease. Evidence indicates that immune cells of the monocyte family reach the central nervous system and can effectively clear beta amyloid from the brain. Various analyzes have progressively reported an increased risk of Alzheimer's dementia in association with vascular and metabolic diseases such as hypertension, hypercholesterolemia, obesity, diabetes and atherosclerosis. To the same extent, the impact of chronic bacterial infections in Alzheimer's disease was revealed. For example, syphilitic dementia caused by the spirochete-treponema pallidum bacteria, which accumulates in the cerebral cortex, produced neurofibrillary tangle-like lesions that led to devastating neurodegenerative disorders. In addition, the bacterium Chlamydia pneumonia can trigger dementia in late-onset Alzheimer's disease by activating astrocytes and cytotoxic microglia, disrupting calcium regulation and apoptosis, leading to impaired cognitive function and increasing its risk.

**Conclusion.** The consequences of dementia are varied: a decline in cognitive and behavioral abilities, which in turn makes it impossible for a person to function autonomously while performing certain tasks and living in the environment, which is also a problem for collective health, and cognition of risk factors allows early detection of the disease with reduced complications and provides a more favorable prognosis with an improved quality of life.