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Commentary

New Developments in Pharmacological Treatments for Ageing Depression

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DESCRIPTION

Cognitive decline in older adults is a complex and multifaceted issue that has garnered increasing attention in recent years. As the global population ages, the prevalence of age-related cognitive disorders, such as Alzheimer's disease and other forms of dementia, has been on the rise. These conditions not only pose significant challenges to individuals and their families but also place a substantial burden on healthcare systems and society as a whole [1,2].

Understanding the causes and mechanisms of cognitive decline in older adults is essential for developing effective interventions and strategies to mitigate its impact. This article aims to explore the current state of research on cognitive decline in older adults and discuss various interventions and preventive measures that can help maintain cognitive function and quality of life in the elderly population. The aging process affects various aspects of brain structure and function. Some degree of cognitive decline is considered a normal part of aging, often referred to as "age-associated cognitive decline" or "mild cognitive impairment." However, when cognitive decline becomes severe and interferes with daily life, it may be indicative of a neurodegenerative condition like Alzheimer's disease. Age-associated cognitive decline is a natural and expected part of growing older. It typically involves subtle changes in cognitive abilities such as memory, processing speed, and attention.

While AACD may be noticeable, it does not significantly impair a person's ability to function independently or perform everyday tasks. Researchers believe that AACD is primarily related to changes in brain structure and function, including a gradual decrease in the volume of the brain's gray matter, reduced synaptic density and alterations in neurotransmitter systems. Growing evidence suggests a link between inflammation and depression, particularly in the elderly population. Inflammatory biomarkers such as C-reactive Protein (CRP) and Interleukin-6 (IL-6) have been associated with treatment-resistant depression in older adults. Targeting inflammation through adjunctive anti-inflammatory agents might offer a novel approach to managing geriatric depression. In addition to traditional antidepressant medications, innovative approaches are being explored to enhance treatment outcomes in geriatric depression. These approaches often complement pharmacological interventions and address the multifaceted nature of the condition. While traditionally used as an aesthetic, ketamine has gained attention for its rapid antidepressant effects, even in treatment-resistant depression.

Mild cognitive impairment is a condition that lies between the normal aging process and more severe forms of cognitive decline like Alzheimer's disease. Individuals with MCI experience cognitive changes that are more pronounced than what is expected for their age but do not meet the criteria for dementia. MCI may involve difficulties with memory, language, reasoning, or executive function. It is estimated that 10-20% of individuals aged 65 and older have MCI, and some of them may progress to Alzheimer's disease or another form of dementia over time. Alzheimer's disease is the most well-known and prevalent neurodegenerative condition associated with cognitive decline in older adults. It is characterized by the accumulation of abnormal protein aggregates, including amyloid-beta plaques and tau tangles, in the brain. These pathological changes lead to the progressive loss of cognitive function, memory impairment, and eventually, a severe decline in daily living skills. Other types of dementia, such as vascular dementia, Lewy body dementia, and frontotemporal dementia, have distinct underlying causes and symptoms. However, they all share the common feature of cognitive decline that significantly impairs a person's ability to function independently. While age is the most significant risk factor for cognitive decline, several other factors can contribute to the onset and progression of cognitive impairment in older adults. Understanding these risk factors is crucial for identifying individuals who may be at higher risk and implementing targeted interventions [3-5].

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CONFLICT OF INTEREST

None.

REFERENCES

1. Reybrouck M, Vuust P, Brattico E. Music and brain plasticity: How sounds trigger neurogenerative adaptations. Neuroplasticity Insights of Neural Reorganization. 2018;85.

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2. Alain C, Zendel BR, Hutka S, Bidelman GM. Turning down the noise: The benefit of musical training on the aging auditory brain. Hear Res.2014; 308:162-173.

3. Bugos JA. The effects of bimanual coordination in music interventions on executive functions in aging adults. Front Integr Neurosci. 2019; 13:68.

4. Sutcliffe R, Du K, Ruffman T. Music making and neuropsychological aging: A review. Neurosci Biobehav Rev 2020; 113:479-491.

5. MacAulay RK, Edelman P, Boeve A, Sprangers N, Halpin A. Group music training as a multimodal cognitive intervention for older adults. Psychomusicology: Music, Mind, and Brain. 2019; 29:180.