

MULTI-INFARCTION VASCULAR DEMENTIA – LITERATURE REVIEW

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Abstract: Introduction: Cognitive impairment in individuals with cerebrovascular disease results in difficulties in exercising one or more advanced mental functions, which may progress to dementia, in which a lasting deficiency in mental functions considerably impacts performance and functioning (CAMPUZANO SC, et al, 2022). **Objective:** To review the relationship between dementia and vascular multiinfarctions. **Result:** Vascular dementia is subdivided into types: multi-infarction dementia, characterized by multiple cerebral infarctions over time; dementia due to strategic infarction, with infarctions located in highly connected cortico-subcortical areas; and dementia due to ischemic disease of the small arteries, caused by lacunar infarctions or lesions in the white matter (CAMPUZANO SC, et al., 2022). **Conclusion:** Around 30% to 40% of people with cerebrovascular disease have some degree of cognitive impairment. **Keywords:** Pseudodementia; Cognitive impairment; Vascular dementia.

INTRODUCTION

There are a series of dementias caused by lack or excess of bodily substances, whether hormones, vitamins, infections, tumors or pathological conditions (LEIVAS EFL, 2021).

Examples of treatable dementias include hypothyroidism, vitamin B12 deficiency, neurosyphilis, AIDS, brain tumors, normobaric communicating hydrocephalus, etc. (LEIVAS EFL, 2021).

Every patient with dementia must undergo investigation of all these causes; An exception is made for anti-HIV, which requires the patient's consent. Therefore, we have to request, at the first consultation, free T4, TSH, serum B12 measurement, VDRL and head CT with and without contrast. Other causes of reversible dementia are alcoholism and excessive use of Central Nervous System medications, such as benzodiazepines (LEIVAS EFL, 2021).

Dementia is a syndrome with multiple causes, characterized by the acquired deterioration of cognitive abilities that impair daily activities. In addition to memory, other mental functions are affected, such as language, visio-spatial skills, calculations and problem solving. Neuropsychiatric and social problems also arise, leading to symptoms such as depression, withdrawal, hallucinations, delusions, agitation, insomnia and disinhibition (CARONI, et al., 2023).

The most common causes of dementia in individuals over 65 years of age are: Alzheimer's disease (AD) (which accounts for approximately 60 percent), vascular dementia (15 percent), and mixed vascular and Alzheimer's dementia (15 percent). Other diseases accounting for approximately 10% include dementia with Lewy bodies; Picks disease; fronto-temporal dementias; normal pressure hydrocephalus (NPH); alcoholic dementia; infectious dementia, such as human immunodeficiency virus (HIV) or syphilis; and Parkinson's disease (BATES et al., 2004).

About 30% to 40% of people with cerebrovascular disease have some degree of cognitive impairment. After three months from the onset of cerebrovascular disease, approximately 20% to 30% of patients are diagnosed with dementia and between 10% and 35% with cognitive impairment. Both vascular cognitive impairment and vascular dementia share common factors with cerebrovascular disease and Alzheimer's disease. Vascular dementia is subdivided into types: multi-infarction dementia, characterized by multiple cerebral infarctions over time; dementia due to strategic infarction, with infarctions located in highly connected cortico-subcortical areas; and dementia due to ischemic disease of the small arteries, caused by lacunar infarctions or lesions in the white matter (CAMPUZANO SC, et al., 2022).

Cognitive impairment in individuals with

cerebrovascular disease results in difficulties in exercising one or more advanced mental functions, which may progress to dementia, in which a lasting deficiency in mental functions considerably impacts performance and functioning (CAMPUZANO SC, et al., 2022).

The continued and increasing global aging of the population, combined with diverse cardiovascular, environmental and lifestyle risk factors, has led to a series of medical and public health challenges. This covers cerebrovascular diseases (CVD) and dementias, including Alzheimer's disease (AD). These issues are interconnected, not only due to risk factors such as high blood pressure (SAH) and diabetes mellitus (DM), but also in terms of causes, pathophysiology and situations such as cognitive impairment and dementia with vascular origin (JUNIOR AAL, et al., 2023).

After a cerebrovascular accident (CVA), different cognitive deficits are observed depending on the side of the brain affected. In cases of stroke in the left hemisphere, immediate memory is usually impaired, with difficulties in recognition and learning. However, information retention remains intact, with a change in the way information is encoded. As a compensation strategy, these individuals tend to rely more on working memory and use other areas of the left hemisphere. In strokes in the right hemisphere, thanks to repetition, there are improvements over time in different types of memory, although performance may remain poor due to coding problems. As a compensation strategy, they benefit from practicing and repeating important information, in addition to using strategies to improve coding (JUNIOR AAL, et al., 2023).

In addition to cognitive changes, it is crucial to consider the emotional aspect in post-stroke patients. Around 15 million people worldwide after a stroke are at risk of developing depression. Additionally, up to 31%

of stroke survivors may experience depression at some point in the five years following the event (MUÑOZ FJA, et al., 2020).

MATERIAL AND METHODS

The search was carried out in the PubMed database and was limited to articles between 2004 and 2023 that met the criteria of being literature reviews and case reports.

Next, the keywords in the article titles were analyzed and those whose themes best fit our objective were selected.

Six articles were selected for full reading.

DISCUSSION

A very controversial issue, but at the same time of great clinical significance, is the possibility of recovery from disorders. From a clinical point of view, the key question is to determine whether the treatment-based therapeutic intervention results in the resolution of already evident cognitive disorders (CARONI, et al., 2023).

CONCLUSION

About 30% to 40% of people with cerebrovascular disease have some degree of cognitive impairment. Vascular dementia is subdivided into types: multi-infarct dementia, characterized by multiple cerebral infarctions over time; dementia due to strategic infarction, with infarctions located in highly connected cortico-subcortical areas; and dementia due to ischemic disease of the small arteries, caused by lacunar infarctions or lesions in the white matter (CAMPUZANO SC, et al., 2022).

CONFLICT OF INTERESTS

Nothing to disclose.

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