Insights on Vascular Dementia

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Key points:

- Introduction to Vascular Dementia
- Causes
- Symptoms
- Prevalence of Vascular Dementia in Pakistan
- Prevention and Control

Introduction

As a subtype of age-related dementia, vascular dementia is second most common after Alzheimer's disease. It reduces blood flow to the brain, damaging brain cells significantly and affecting cognitive function of the brain. Approximately making up for 15% to 50% of dementia cases globally.[1] Vascular dementia can get worse over time but it is also possible for its progression to slow down.

Causes

The main root cause is due to reduced or interrupted flow of blood and oxygen to the brain or damaged blood vessels in the brain, these conditions are part of a category called vascular contributions to cognitive impairment and dementia (VCID).[2] However, this occurs as a consequence of various types of cerebrovascular issues such as ischemic stroke, Hemorrhagic stroke and transient ischemic attacks (also known as TIAs or "mini-strokes"). With these problems being connected to known conditions like high blood pressure, high cholesterol and diabetes.[3] There are other risk factors that include leading an unhealthy lifestyle, poor diet, smoking, being overweight etc.[4]

Symptoms

Symptoms may be cognitive and behavioural:

- Slowness of thought
- Difficulty with managing emotions (inappropriate timings of emotional responses in certain situations)
- Memory and language problems (may be less significant than those with Alzheimer's disease)

Additionally symptoms could be physical and affect motor abilities:

- Weakening of a limb
- Swallowing disorders
- Difficulty coordinating movements

The struggles of planning, reasoning and carrying out specific tasks are what make vascular dementia disabling in day-to-day activities.[5]

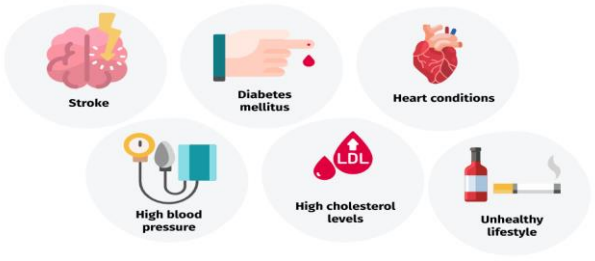


Figure 1: *Risk factors of vascular dementia.* [4]

Prevalence of Vascular Dementia in Pakistan

Information on dementia in Pakistan as a whole is limited. The range of Pakistan's population with dementia is roughly 200,000 to 400,000, with a high frequency of those cases linked to hypertension and diabetes.[6] Nonetheless, there is a lack of understanding and awareness among the population due to not enough research published in this area. There is a misconception among the people that dementia is a condition that comes with old age, which is not untrue, but it is also seen in ages below 65, though rarely. As a developing country, there are challenges with general care facilities which adds to the under-resourced services.[7]

Overall, vascular dementia is prevalent at early ages, from ages 11 to 25 years due to injuries to the brain and stroke.[8] It is thought that reducing 10% to 20% of risk factors such as hypertension, obesity, physical activities, diabetes and air pollution could decrease the likelihood of dementia to occur.[9]

Prevention and Control

Considering the fact that damaged brain cells cannot be repaired, vascular dementia does not have a cure but can be handled by managing its risk factors to prevent further worsening of the condition. These methods include:

- Raising awareness of dementia and its subtypes, increasing the chances of early detection.
- Language and speech therapy.
- Taking cholinesterase inhibitors that are used to temporarily improve cognitive function.[10]
- Vascular cognitive impairment (VCI) management prioritizes the treatment of vascular risk factors, aiding with hypertension control.[11]
- Physiotherapy for movement difficulties

Dementia altogether has many studies and evidence as for what aids or prevents, but there still are some concepts that are not clear, and the number of people with dementia are more than ever.

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