What is vascular dementia?

Information sheet 402

Vascular dementia is the second most common form of dementia after Alzheimer's disease. This factsheet will help you to understand vascular dementia by explaining the causes, symptoms and treatments available.

What do we mean by 'vascular dementia'?

The term 'dementia' is used to describe the symptoms that occur when the brain is damaged by specific diseases. These diseases include Alzheimer's disease and vascular dementia. Someone with dementia may have difficulties remembering, solving problems or concentrating. Vascular dementia is a type of dementia caused by problems in the supply of blood to the brain.

How does it develop?

To be healthy and function properly, the brain cells need a good supply of blood. The blood is delivered through a network of blood vessels called the vascular system. If the vascular system within the brain becomes damaged and blood cannot reach the brain cells, the cells will eventually die. This can lead to the onset of vascular dementia.

What causes damage to the vascular system in the brain?

There are a number of conditions that can cause or increase damage to the vascular system. These include high blood pressure, heart problems, high cholesterol and diabetes. This means it is important that these conditions are identified and treated at the earliest opportunity.

What are the symptoms?

Vascular dementia affects different people in different ways and the speed of the progression varies from person to person. Some symptoms may be similar to those of other types of dementia. However, people with vascular dementia may particularly experience:

- problems concentrating and communicating
- depression accompanying the dementia
- symptoms of stroke, such as physical weakness or paralysis
- memory problems (although this may not be the first symptom)
- a 'stepped' progression, with symptoms remaining at a constant level and then suddenly deteriorating
- epileptic seizures
- periods of acute confusion.
Other symptoms may include:

- hallucinations (seeing things that do not exist)
- delusions (believing things that are not true)
- walking about and getting lost
- physical or verbal aggression
- restlessness
- incontinence.

What are the different types of vascular dementia?

There are two main types of vascular dementia: one caused by stroke and one caused by small vessel disease. A third type is a mixture of the two. There are many other types of vascular dementia.

Stroke-related dementia

Stroke is the term used to describe permanent brain damage caused by an interruption in the supply of blood to specific parts of the brain. The symptoms that a person experiences as a result of a stroke depend on which area of the brain has been damaged. If the area in question is responsible for movement of a limb, paralysis might occur. If it is responsible for speech, the person might have problems communicating. Equally, damage to particular areas in the brain can cause the symptoms of dementia.

When vascular dementia is caused by a single stroke, it is sometimes called single-infarct dementia. Vascular dementia can also be caused by a series of small strokes. These can be so tiny that the person might not notice any symptoms, or the symptoms may be only temporary. This is called multi-infarct dementia.

Always consult a doctor if you experience any sudden symptoms, such as slurred speech, weakness on one side of the body, or blurred vision - even if they are only temporary. These episodes may be caused by temporary interruptions in the blood supply within the brain, known as transient ischaemic attacks. If left untreated, they can lead to permanent damage.

Small vessel disease-related dementia

This type of dementia, also known as sub-cortical vascular dementia or, in a severe form, Binswanger's disease, is caused by damage to tiny blood vessels that lie deep in the brain. The symptoms develop more gradually and are often accompanied by walking problems.

Vascular dementia and Alzheimer's disease (mixed dementia)

A diagnosis of mixed dementia means that Alzheimer's disease, as well as stroke or small vessel disease, may have caused damage to the brain.

Who is at most risk of developing vascular dementia?

Certain factors can increase a person's risk of developing dementia. These include:
- a medical history of stroke, high blood pressure, high cholesterol, diabetes (particularly type II), heart problems, or sleep apnea (where breathing stops during sleep)
- a lack of physical activity, drinking more than recommended levels of alcohol, smoking, eating a fatty diet, or leaving conditions such as high blood pressure or diabetes untreated
- a family history of stroke or vascular dementia
- an Indian, Bangladeshi, Pakistani, Sri Lankan or African-Caribbean ethnic background.

What should someone with symptoms of vascular dementia do?

The first step is to visit the GP as soon as possible. The earlier a diagnosis is made, the better the chance of treatment to slow the progression of the disease. The GP will need to find out about the person’s symptoms, medical history, current health and lifestyle.

Unless another cause can be found for the symptoms, the doctor should refer the patient to a specialist for cognitive tests to assess their attention, planning and thinking speed. The specialist may carry out brain scans to help make a diagnosis. Investigations should also aim to identify conditions that may be contributing to the progression of vascular dementia. These conditions include high blood pressure, heart problems, diabetes and high cholesterol.

It is often helpful if a close friend or family member comes to the first GP appointment. They may be able to describe subtle changes that the patient themselves has not noticed.

If the patient has any family history of vascular dementia, or related conditions (such as heart problems), they should mention this to the GP.

How is vascular dementia treated?

Although the brain damage that causes vascular dementia cannot be reversed, it may be possible to slow the progression of the disease in a number of ways. These include:

- taking medication to treat any underlying conditions, such as stroke, high blood pressure, high cholesterol, diabetes or heart problems
- adopting a healthier lifestyle by stopping smoking, taking regular exercise, eating healthily, and drinking alcohol only in moderation
- receiving rehabilitative support, such as physiotherapy, occupational therapy and speech therapy, to help the person maximise their opportunities to regain their lost functions.

For details of Alzheimer's Society services in your area, visit alzheimers.org.uk/localinfo
For information about a wide range of dementia-related topics, visit alzheimers.org.uk/factsheets
Further reading

To learn more about vascular dementia, see our new publication
An introduction to vascular dementia. The booklet is priced at £2 and can be ordered from
Xcalibre on 01753 535 751 or alzheimers@xcalibrefs.co.uk

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