



Medicine for Managers

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Vascular Dementia

The word dementia is synonymous with the term Alzheimer's Disease in the minds of many. In fact Alzheimer's disease is the commonest form of dementia but Vascular Dementia is also common affecting about 150,000 people in the United Kingdom. It is characterised by progressive neurological deterioration associated with reduction or damage to the blood supply to the brain.

It is a predatory disease progressively stealing the brain's ability to think, to reason and to remember (three functions collectively known as ***cognition***), to solve problems (especially quickly) and to do a host of other tasks such as speaking fluently or visualising objects. In simple terms, if the blood vessels in the brain become diseased for any reason, the blood flow is reduced and brain cells progressively die.

Unfortunately the disease is irreversible and, once diagnosed, treatment is aimed at trying to prevent it becoming worse.

Soon there will be two sorts of people in the world . . . those with dementia and those who know someone with dementia.

3. Progressive narrowing of individual vessels in the brain throughout the brain (small vessel disease)

Advancing small vessel disease or acute blood loss affecting larger areas of brain are associated with a variety of diseases and disorders

1. High blood pressure
2. Diabetes
3. Obesity
4. Smoking
5. Sleep apnoea
6. Depression
7. Heart and vascular disease

The blood vessels may become diseased for a variety of reasons:

1. Single large area where blood flow ceases
2. Repeated small areas where there is recurrent widespread damage to the brain

Age is the strongest risk factor. The risk of developing the disease approximately doubles every five years over age 65. Men are at slightly higher risk than women.

Vascular dementia is classified by type of blood vessel damage:

1. **Stroke Related Dementia.** The onset of dementia is sudden and may be responsible for a spectrum of symptoms, which may be severe. The damage to the brain is the result of a sudden vascular event. Blood is cut off to an area of brain as a result of a stroke. Commonly the event is the result of a clot forming in a blood vessel and, the bigger the vessel, the more widespread the damage. Less commonly the blood vessel bursts and blood destroys brain cells by direct pressure. The symptoms are immediate in this form of dementia.

2. **Multi-infarct dementia.** This type of dementia occurs when the brain is subject to multiple small strokes (infarcts). They occur when smaller vessels are blocked by clot or by atheroma. Each stroke is generally mild. Some patients may not even notice any symptoms. Sometimes there are minor physical or mental deficits. Sometimes the symptoms are short-lived because the blockage clears itself. If the episode lasts less than twenty-four hours it is described as a *transient ischaemic attack (TIA)*. Unlike the single infarct dementia, multi-infarct dementia causes often relatively mild symptoms around the brain

We are really a composite of our life experiences – memory layered on memory – and dementia steals that away

and the development of dementia is the result of the additive nature of all the small areas of damage.

3. **Small Vessel Dementia** is the result of progressive disease affecting many of the small vessels which course through the brain. The vessels may become thickened or twisted or develop deposits of fatty material in the walls. The result is reduced oxygenation and nutrition of nerves ultimately leading to death of nerve tracts. The blood vessels affected by the diseases are usually deeper within the brain. Damage to multiple small vessels is thought to be the most common type of vascular dementia.

4. **Mixed Dementia.** Some patients develop Alzheimer's disease and vascular dementia such that both

contribute to the symptoms. Depending on the relative preponderance of each type, the symptoms may be more like one type than the other, although sometimes it is a combination of the two. Alzheimer's disease commonly results in **memory loss** whereas **loss of reasoning** ability is more a feature of vascular dementia.

Diagnosis may be difficult in the early stages of the disease. People are often referred to their GP because of changes noticed by those around them.

After a careful history from the patient and from family members or other witnesses, physical examination and an assessment of risk factors, there are several simple mental tests which the GP can carry out and which can raise the suspicion of dementia.

In cases where dementia is suspected the patient will normally be referred to a specialist.

Apart from the neurological symptoms of memory loss, communication difficulties, reasoning and disorientation, other presenting problems may be aggression, irritability or disturbed sleep.

In some cases socially inappropriate behaviour becomes a problem. Hallucinations and delusions may be a significant feature.

Patients live an average of five years from diagnosis and the usual cause of death is a stroke or a heart attack.

Treatment of dementia is limited. In patients diagnosed with vascular dementia who have underlying pathologies like diabetes, high blood pressure, heart disease, etc. treatment of the condition

may reduce the rate of progress of the condition.

Medication to reduce blood pressure, to reduce the risk of thrombosis (blood clot) and to reduce blood cholesterol will be helpful.

Lifestyle changes such as stopping smoking and losing weight may also slow the relentless changes. Talking therapies will help in patients with underlying

depression. It is essential that such patients remain active and have repeated mental and physical stimulation.

For carers providing care for patients with dementia may be extraordinarily difficult.

As confusion and aggression develop many carers see the person that they have known over the years gradually fade away to be replaced by someone they barely recognise. Carers need support too and it is essential for other family members and friends to provide that support whenever possible.

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*My husband is
leaving me; no
dramas, no suitcase
in the hall. But there
is another woman.
Her name is
dementia.*

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