

**Round-table Report:**



**Discussing  
Vascular  
Dementia and  
Stroke**

**Research Round-table meeting 29 January 2015**

# What is Vascular Dementia?

Dementia is the loss of mental ability due to the gradual death of brain cells. Vascular dementia is the second most common type of dementia. It is estimated to account for about 20% of all cases of dementia, which itself affects around 850,000 people in the UK. It is more common in men, and usually starts before the age of 75.

Vascular dementia development is attributed to a lack of a blood supply to the brain. This is generally caused by cerebral small vessel disease (SVD), which is a narrowing and hardening of the blood vessels to the brain and which leads to changes deep in the brain, including tiny strokes. These changes lead to vascular cognitive impairment, which is the beginning of vascular dementia. Sometimes a stroke, or a series of mini-strokes, is the first sign of cerebral SVD and the stroke(s) cause a more sudden or rapid cognitive decline. Cognitive problems are frequent after a stroke and there is currently no way to predict which patients with cognitive impairment will go on to develop vascular dementia. As it stands, there are no treatments for vascular dementia, nor can it be prevented.

## Why did we hold a round-table on Vascular Dementia?

Vascular dementia has been highlighted as a research priority in our new research strategy due to the devastating impact of the disease, the lack of treatments or preventive measures to stop the progression of the disease, and the paucity of research in this area. We want to work in collaboration with researchers, other funders, patients and carers to identify the biggest issues that we can start to tackle with research. Our aim is to lead a programme of work in this area. Firstly, to identify the difficulties, priorities and next steps for research in this field, and to work in partnership with others to ensure we fund a programme that helps us start to make some long overdue progress in the field. The Dementia UK report for the Alzheimer's Society suggested that by 2025 there will be 250,000 people living in the UK with vascular dementia, and we must act now if we are to

help this huge number of people affected by such a devastating disease.



Dr Kate Holmes, Assistant Director of Research at the Stroke Association, with Dr Simon Ridley, Head of Research at Alzheimer's Research UK.

## Who came and what was discussed?

Key experts in the field came along and the day was Chaired by Professor Seth Love from the University of Bristol.

Professor John O'Brien of the University of Cambridge opened the presentations to set the scene. He gave us an overview of vascular dementia research and took the audience through the sub-types of vascular dementia, which include those caused by the blockage of blood supply to the brain, those caused by bleeds in the brain, and the most common hereditary cause of vascular dementia called CADASIL.

He raised the important point that vascular dementia commonly occurs within 'mixed dementia' consisting of one or more dementia types including Alzheimer's disease in the same patient. As such, it makes the identification and definition of vascular dementia, versus other dementias and mixed dementia, incredibly difficult and complicated for doctors and researchers. He then discussed what research had been conducted for potential treatment of vascular dementia, and closed by outlining the few clinical trials into vascular dementia that are currently underway.

Next we heard from Professor Raj Kalaria of the University of Newcastle, who spoke about the 'pathophysiology' of stroke – which means he talked about the research community's current understanding of the different mechanisms behind the changes in brain structure observed in SVD and vascular dementia. He further explained how both vascular dementia and stroke are risk factors for each other.

Professor Hugh Markus of the University of Cambridge talked to us about a type of brain scan called MRI (magnetic resonance imaging) and how this technology can be used to help us better understand vascular dementia and its relationship to changes in the brain, including stroke. Currently, measuring the mental faculty degraded by dementia, cognition, suggests it is not a reliable marker of how people have been affected by the disease. Professor Markus instead highlighted the use of measurable observations on brain scans that may prove reliable, alternative markers of vascular dementia.

We also heard from Professor Peter Passmore of Queen's University Belfast. He is lead researcher on the AFFECT trial, which is looking at the use of amlodipine, a drug currently used to treat high blood pressure, in the treatment of vascular dementia. He shared the latest findings, with the trial due for completion in December 2016.

The day's presentations were concluded by Professor Philip Bath, Stroke Association Professor of Stroke Medicine at the University of Nottingham. He commented on the final results of the PODCAST (Prevention of Decline in Cognition After Stroke (PODCAST) study which had recently been completed, and was co-funded by both the Stroke Association and Alzheimer's Society.

Our general discussion included how risk factors for vascular dementia are similar to other vascular diseases (i.e. stroke and heart disease) including high cholesterol, high blood pressure, smoking, obesity and having diabetes. We also discussed other issues around running research trials in this population, such as difficulties with recruitment and potential reasons for this. Overall, it was agreed that both stroke experts and dementia experts should be involved in study design as the two disciplines vary considerably in the way trials are run – and any trial in vascular dementia needs both sets of experts to help ensure success.

We were also delighted to welcome representatives from other funding bodies to the round-table, to discuss a disease area that is pertinent to a wide range of organisations. In attendance were Dr Simon Ridley from Alzheimer's Research UK; Dr Clare Walton from Alzheimer's Society; Professor Jeremy Pearson and Dr Shannon Amoils from the British Heart Foundation (BHF), and Dr Catherine Moody from the Medical Research Council (MRC).

## What happened and what's next?

We brought together experts to discuss the progress, issues, gaps and overall current status of research in the field of vascular dementia. From these discussions, we will produce a report on the research priorities as identified by the experts from this meeting. Later in the year, we will engage with stroke survivors, carers and clinicians as well as key researchers and other funders to further discuss and refine these priorities. By late 2015, we expect to have a call for proposals ready which will outline to the research community the research we would like to see in vascular dementia. Proposals will be accepted from this time.

## We are the Stroke Association

The Stroke Association is the leading stroke charity in the UK. We believe in the power of research to save lives, prevent stroke and ensure that people make the best recovery they can after a stroke.

**We're here for you. If you'd like to know more, please get in touch.**

**Stroke Helpline:** 0303 3033 100

**Website:** [stroke.org.uk](http://stroke.org.uk)

**Email:** [info@stroke.org.uk](mailto:info@stroke.org.uk)

**From a textphone:** 18001 0303 3033 100

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## Together we can conquer stroke