

# Vascular Dementia Update

- **Classification**
- **Risk factors**
- **Assessment**
- **Management**

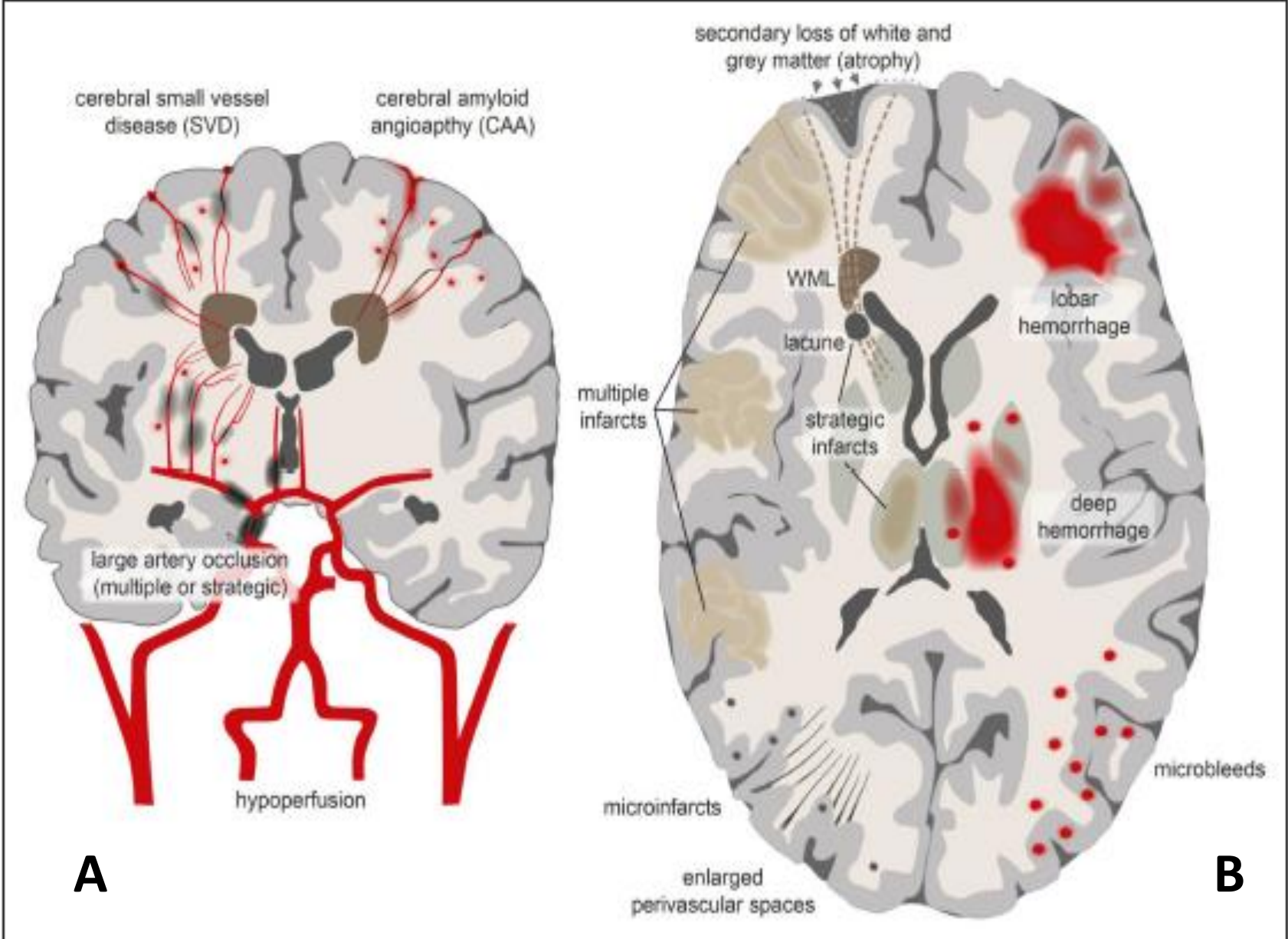
# Declarations

- Honoraria and educational grants from Pfizer, Eisai, Novartis, Shire, Janssen, Lundbeck, Nutricia
- Clinical advisor to Pentag (NICE 2010)

# Vascular Impairment of Cognition Classification Consensus Study Guidelines for VaD

- Clinical, neuropsychological, and imaging: follow the NINDS-Canadian Stroke Network guidelines. **Core domains for cognitive assessment should include executive function, attention**, memory, language, and visuospatial function.
- Major VCI (VaD): clinically significant deficits of sufficient severity in at least 1 cognitive domain (deficits may be present in multiple domains) and severe disruption to IADL/ADL (independent of motor/sensory sequelae of vascular event).
- Patients given a diagnosis of major VCI (VaD) are subcategorized according to the underlying pathology as appropriate
- The terms “probable” and “possible” are used to define the available evidence.
- **MRI is a “gold-standard”** requirement for clinical diagnosis of VCI. Probable mild VCI or probable major VCI (VaD) is the appropriate diagnostic category if CT the only imaging available.
- **Post-stroke dementia is defined by an immediate and/or delayed cognitive decline that begins within 6 months after a stroke and that does not reverse.**
- Exclusions from diagnosis: drug/alcohol abuse/dependence within the last 3 months of first recognition of impairment or delirium.

Major mechanisms underlying vascular cognitive impairment (VCI). A, Vascular causes. B, Brain parenchymal lesions associated with VCI.



# Risk factors For VaD

		<ul style="list-style-type: none"> <li><span style="color: blue;">■</span> No Association</li> <li><span style="color: red;">■</span> Insufficient Evidence</li> <li><span style="color: black;">■</span> Conflicting Evidence</li> <li><span style="color: purple;">■</span> Established Evidence</li> </ul>	Vascular dementia
Non-modifiable risk factors	age		*
	sex		
	genetic factors (ApoE)		
Lifestyle factors	education		*
	smoking		
	diet		
	homocysteine		
	physical activity		*
	obesity, BMI		*
	cognitive activity		
Physiological risk factors	mid-life hypertension		*
	late-life hypertension		
	hyperglycemia, diabetes		*
	lipids, dyslipidemia		
	inflammation		*
	frailty		*
Concomitant clinical vascular disease	stroke		*
	coronary artery disease		*
	atrial fibrillation		*
	peripheral arterial disease		*
	chronic kidney disease		*
	low cardiac output		
	depression		*

# Assessment

- **Clinical (Cognition, CVS, CNS)**
- **Imaging essential – MRI**
- **Make sure relevant CVS investigations done eg Carotid duplex, Echocardiogram, 24 hour ECG**

# Management approach

**The main goal of treatment is to prevent further cerebrovascular disease by optimal control of major risk factors in people with a history of stroke or TIA.**

# Primary prevention

**The high-risk groups - that is, older patients with hypertension, smoking, diabetes, atrial fibrillation, past TIA, or stroke - should be targeted for primary prevention in the following ways:**

- **Optimal treatment of hypertension and diabetes**
- **Reduction in BMI through dietary restriction and graduated low-impact physical activity/exercise**
- **Antiplatelet therapy for those with history of TIA, stroke, or coronary disease**
- **Encouragement of patients to cease smoking and decrease alcohol consumption**
- **Control of hyperlipidaemia**
- **Anticoagulation of patients with atrial fibrillation**
- **Treatment of high-grade carotid stenosis with antiplatelet agents or carotid endarterectomy.**



# **Treatments to improve cognitive symptoms related to cerebrovascular disease**

- **Mixed dementia with co-existing Alzheimer's disease and vascular dementia is thought to occur in up to 50% of dementia cases.**
- **Necessary to ensure that the patient does not have a co-existent Alzheimer's dementia that may warrant treatment**

**Thank You**