

Preventing cognitive decline and dementia from cerebral microvascular disease

<https://www.neurodegenerationresearch.eu/survey/preventing-cognitive-decline-and-dementia-from-cerebral-microvascular-disease/>

Principal Investigators

Professor Joanna Wardlaw

Institution

University of Edinburgh

Contact information of lead PI

Country

United Kingdom

Title of project or programme

Preventing cognitive decline and dementia from cerebral microvascular disease

Source of funding information

Alzheimer's Society

Total sum awarded (Euro)

€ 337,302

Start date of award

01/10/2015

Total duration of award in years

2.8

Keywords

Research Abstract

A quarter of all ischaemic strokes are lacunar (small vessel) in type, 35000 pa in the UK, and due to an intrinsic, non-atheromatous, non-cardioembolic perforating cerebral arteriolar disease. 'Small vessel disease' also affects the brain diffusely, causing up to 40% of dementias, alone or mixed with Alzheimer's disease, 350,000+ patients estimated currently in the UK. There is no proven treatment: conventional antiplatelet drugs may be ineffective or even hazardous, antihypertensive treatment and statins have been disappointing. The disease mechanism is poorly understood but endothelial dysfunction, blood-brain barrier failure and vessel stiffness appear to contribute to the pathogenesis. Promising data available for licensed drugs with

relevant modes of action, cilostazol (>6000 stroke patients in the Far East) and isosorbide mononitrate (ISMN, widely used in cardiac disease) support their testing in small vessel disease. We propose a phase 2, randomised, dose-escalation, cross-over trial to test short-term administration of Cilostazol, ISMN, or both, to provide data on patient tolerability of dose (headache, dizziness), safety (blood pressure, platelet function), provide mechanistic evidence of efficacy (cerebrovascular reactivity, arterial compliance), and to inform the design of a larger phase 2-3 trial. The trial will recruit 60 patients with small vessel disease, in two expert stroke centres (Edinburgh and Nottingham) where there are many suitable patients and trials infrastructures. Additional benefits will include improved methods to stratify patients by small vessel disease burden in routine practise and data on intermediary mechanistic outcomes to assist in planning future trials testing novel agents for either stroke or dementia.

Further information available at:

Types:

Investments < €500k

Member States:

United Kingdom

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A