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An evaluation of potential therapies to inhibit cerebral emboli in dementia

Submission date	Recruitment status
05/06/2007	No longer recruiting
Registration date	**Overall study status**
06/07/2007	Completed
Last Edited	**Condition category**
23/06/2020	Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number
2005-004283-23

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

Study information

Scientific Title
An evaluation of potential therapies to inhibit cerebral emboli in dementia

Study objectives
The causes of common dementias such as Alzheimers Disease (AD) and Vascular Dementia (VAD), which affect 800,000 people in the UK, remain uncertain. We recently found that both AD and VAD are associated with small particles (emboli) in the circulation to the brain and that patients with these emboli suffer a more rapid progression of dementia. Prior to major clinical trials on whether therapy to inhibit emboli may prevent or treat dementia, we need to study possible therapies that may inhibit these emboli. We plan to compare two therapeutic approaches:
1. Platelet inhibition
2. An anti-inflammatory lipid therapy thought to stabilise arterial disease

Patients will be given no new treatments. The number of emboli in the cerebral circulation measured by non-invasive ultrasound, assessment of brain function and markers of inflammation associated with dementia will be measured before and after 1 month of the trial treatment. Any treatment or combination of treatments that inhibit cerebral emboli will then be investigated further in major clinical trials on the treatment of established dementia or the prevention of dementia in at risk elderly people.

Ethics approval required
Old ethics approval format

Ethics approval(s)
South Manchester Research Ethics Committee, ref: 05/Q1403/214, Amendment number 1 (06/03/2006)

Study design
Randomised controlled clinical trial

Primary study design
Interventional

Secondary study design
Randomised cross over trial

Study setting(s)
Not specified

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied
Dementia, Alzheimer's disease and Vascular Dementia

Interventions
Randomised controlled clinical trial of atorvastatin/clopidogrel/no treatment over 1 month with crossover in 45 patients with Alzheimer's dementia (AD) and 45 with vascular dementia (VaD)

Patients who are already taking aspirin will continue aspirin therapy. No patient will have therapeutic medication withdrawn.

Those with Spontaneous Cerebral Emboli (SCE) will be randomised, stratified for type of dementia, into one of three counterbalanced treatment orders:
1. Clopidogrel; Atorvastatin; No treatment
2. Atorvastatin; No treatment; Clopidogrel
3. No treatment; Clopidogrel; Atorvastatin

Each treatment will last for 1 month, and there is a washout period of 1 week between each treatment. Transcranial Doppler (TCD) measurement of SCE over two separate 1-hour periods on different days in the same week will be repeated after 4 weeks on each therapy.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Atorvastatin, clopidogrel

Primary outcome measure
The number of SCE counted during two separate 1-hour periods of monitoring by TCD (at baseline and following each therapy)

Secondary outcome measures
1. Any change in the inflammatory markers to Interleukin-6 or C-Reactive Protein as a result of 1 month therapy with the trial medications
2. Any change in the measures of cognitive function as a result of 1 month of therapy using the trial medications

Overall study start date
01/07/2007

Completion date
30/06/2009

Eligibility

Key inclusion criteria
1. Dementia: patients must fulfil DSM IV criteria for dementia (Diagnostic and Statistic Manual of Mental Disorders - fourth edition)

2. AD: patients must fulfil the National Institute of Neurological and Communicative Disorders and Stroke-Alzheimer's Disease and Related Disorders Association (NINCDS-ADRDA) criteria
3. VAD: patients must fulfil the National Institute for Neurological and Communicative Disorders and Stroke -Association Internationale pour la Recherche et l'Enseignement en Neurosciences (NINCDS–AIREN) criteria

Participant type(s)
Patient

Age group
Senior

Sex
Both

Target number of participants
90 (45 patients with AD and 45 with VaD)

Total final enrolment
33

Key exclusion criteria
1. Patients with a Mini-Mental State Examination (MMSE) score of less than 10 and/or severe aphasia (as the study requires considerable co-operation)
2. Current anticoagulant treatment (may reduce spontaneous emboli)
3. Current clopidogrel treatment
4. Current statin treatment
5. Diagnosed as suffering from Atrial Fibrillation (AF)
6. Diagnosed with significant liver disease: a liver function test will be carried out if liver disease is clinically indicated in any participants
7. Diagnosed with active pathological bleeding such as peptic ulcer or intracranial haemorrhage
8. Any surgery scheduled during study involvement
9. Baseline coagulation parameters suggest unsuitability for clopidogrel/atorvastatin treatment

Date of first enrolment
01/07/2007

Date of final enrolment
30/06/2009

Locations

Countries of recruitment
England

United Kingdom

Study participating centre

University Hospital of South Manchester
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Sponsor information

Organisation
University Hospital of South Manchester (UK)

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Sponsor type
Hospital/treatment centre

Website
http://www.researchdirectorate.org.uk/

ROR
https://ror.org/00he80998

Funder(s)

Funder type
Charity

Funder Name
Alzheimer's Society (UK) (grant ref: 87 [30 January 2007])

Alternative Name(s)
alzheimerssoc

Funding Body Type
Private sector organisation

Funding Body Subtype
Associations and societies (private and public)

Location
United Kingdom

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Basic results			23/06/2020	No	No