

Reversibility of impaired cerebrovascular reactivity in patients with hypertension: comparison of losartan and atenolol

Submission date 08/09/2005	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 27/10/2005	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 11/10/2016	Condition category Circulatory System	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

Dr Matthew Walters

Contact details

Department of Medicine & Therapeutics
Western Infirmary
44 Church Street
Glasgow
United Kingdom
G11 6NT
+44 (0)141 211 2821
gcl203@clinmed.gla.ac.uk

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

Study information

Scientific Title

Reversibility of impaired cerebrovascular reactivity in patients with hypertension: comparison of losartan and atenolol

Study objectives

To investigate the effect of both losartan and atenolol upon impaired cerebrovascular reactivity in hypertension.

Ethics approval required

Old ethics approval format

Ethics approval(s)

West Ethics Committee of NHS Greater Glasgow and Clyde, 18/12/2003, ref: 03/118 (1)

Study design

Randomised controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Not specified

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

Health condition(s) or problem(s) studied

Hypertension

Interventions

Patients will undergo baseline assessment of cerebrovascular reactivity. Mean flow velocity (MFV) in the middle cerebral artery (MCA) will be measured using transcranial Doppler. Each subject will then receive an intravenous infusion of acetazolamide after which MFV will be measured. MFV in the internal carotid artery and peripheral arterial stiffness using Sphygmocor will also be assessed pre- and post-infusion. Patients then receive a supply of either losartan and atenolol tablets for 4 weeks after which they will undergo cardiovascular reactivity (CVR) assessment as before. A 1-week washout period of no medication will follow, then the protocol repeated with the alternated tablet.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Losartan, atenolol

Primary outcome measure

Changes in cerebrovascular reactivity.

Secondary outcome measures

Not provided at time of registration

Overall study start date

01/08/2004

Completion date

01/02/2006

Eligibility**Key inclusion criteria**

1. Male: 50-80 years
2. Electrocardiogram (ECG) evidence of left ventricular hypertrophy (LVH)
3. Blood pressure (BP) 150-200/90-115

Participant type(s)

Patient

Age group

Adult

Sex

Male

Target number of participants

13

Key exclusion criteria

1. >70% internal carotid artery (ICA) stenosis
2. Middle cerebral artery (MCA) stenosis
3. Contra-indication to losartan, atenolol or acetazolamide
4. Serum creatinine >130 µmol/l
5. Prior treatment with angiotensin converting enzyme (ACE)-1/angiotensin II receptor blocker (ARB)/beta blocker unless able to stop 4 weeks prior to recruitment

Date of first enrolment

01/08/2004

Date of final enrolment

01/02/2006

Locations**Countries of recruitment**

Scotland

United Kingdom

Study participating centre**Western Infirmary**

Glasgow

United Kingdom

G11 6NT

Sponsor information**Organisation**

University of Glasgow (UK)

Sponsor details

University Avenue

Glasgow

Scotland

United Kingdom

G11 6NT

+44 (0)141 211 2176

pcn1w@clinmed.gla.ac.uk

Sponsor type

University/education

ROR

<https://ror.org/00vtgdb53>

Funder(s)**Funder type**

University/education

Funder Name

University of Glasgow

Alternative Name(s)**Funding Body Type**

Private sector organisation

Funding Body Subtype

Universities (academic only)

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