

Reversal of cerebrovascular endothelial dysfunction in diabetes: the effect of allopurinol upon cerebrovascular nitric oxide bioavailability

Submission date
09/09/2005

Recruitment status
No longer recruiting

Prospectively registered

Registration date
22/11/2005

Overall study status
Completed

Protocol

Statistical analysis plan

Results

Last Edited
05/01/2009

Condition category
Nutritional, Metabolic, Endocrine

Individual participant data

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

Study information

Scientific Title

Study objectives

Treatment with a xanthine oxidase inhibitor will improve cerebrovascular reactivity in patients with diabetes.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Diabetes

Interventions

Two weeks allopurinol versus lactose capsule.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Allopurinol

Primary outcome(s)

The change in internal carotid artery flow following L-NMMA infusion.

Key secondary outcome(s)

1. Change in serum urate level
2. Change in middle cerebral artery flow velocity

Completion date

01/11/2006

Eligibility**Key inclusion criteria**

1. Type II diabetes less than 5 years duration, treated with diet, metformin thiazolidinediones or a combination
2. Aged greater than 40 years

3. Normal full Bruce protocol exercise treadmill testing (ETT)
4. Favourable temporal bony window
5. HbA1c less than 9%
6. Cholesterol less than 7.5 mmol/l

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Greater than 70% Internal carotid artery stenosis
2. Known coronary artery disease
3. Other significant comorbidity
4. Contraindication to allopurinol
5. Concurrent therapy with azathioprine or 6-mercaptopurine
6. Insulin or sulphonylurea treatment
7. Serum creatinine greater than 250 µmol/l

Date of first enrolment

01/11/2005

Date of final enrolment

01/11/2006

Locations**Countries of recruitment**

United Kingdom

Scotland

Study participating centre

Department of Medicine & Therapeutics

Glasgow

United Kingdom

G11 6NT

Sponsor information

Organisation

Greater Glasgow NHS Board/Glasgow University (UK)

ROR

<https://ror.org/05kdz4d87>

Funder(s)

Funder type

Government

Funder Name

Chief Scientist Office of the Scottish Executive Health Department (UK)

Results and Publications

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?
Results article	results	01/01/2009		Yes	No