

Effect of valsartan on endothelial function, carotid intima-media thickness, left ventricular mass, arterial compliance, inflammation and coagulation abnormalities in the metabolic syndrome

Submission date 29/10/2007	Recruitment status No longer recruiting	☐ Prospectively registered
Registration date 07/02/2008	Overall study status Completed	☐ Protocol
Last Edited 12/04/2017	Condition category Nutritional, Metabolic, Endocrine	☐ Statistical analysis plan
		☐ Results
		☐ Individual participant data
		☐ Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

Contact name
Dr Rajdeep Khattar

Contact details
Consultant Cardiologist
Manchester Heart Centre
Oxford Road
Manchester
United Kingdom
M13 9WL
+44 (0)161 276 6576
rajdeep.khattar@cmmc.nhs.uk

Additional identifiers

Clinical Trials Information System (CTIS)
2006-006986-18

Protocol serial number

EudraCT Number:

Study information

Scientific Title

Effect of valsartan on endothelial function, carotid intima-media thickness, left ventricular mass, arterial compliance, inflammation and coagulation abnormalities in the metabolic syndrome

Study objectives

The study is conducted on patients with metabolic syndrome. The National Cholesterol Education Program Adult Treatment Panel definition of metabolic syndrome will be applied and includes the presence of three or more of the following components:

1. Waist girth greater than 102 cm in men or greater than 94 cm in women
2. Serum triglycerides greater than 1.7 mmol/l
3. Serum High Density Lipoprotein (HDL)-cholesterol less than 1.04 mmol/l
4. Fasting plasma glucose greater than 6.1 mmol/l
5. Blood pressure greater than 130/85 mmol/l

Null hypothesis:

Endothelial function in patients with metabolic syndrome does not differ significantly from endothelial function in patients with only two or fewer components of metabolic syndrome or control participants. Also, angiotensin receptor blockade has no role in the reversal of endothelial dysfunction.

Hypothesis:

Angiotensin receptor blockade can reverse endothelial dysfunction in patients with metabolic syndrome.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Primary study design

Interventional

Study design

Randomised placebo-controlled single-centre prospective study

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Metabolic syndrome

Interventions

Those with metabolic syndrome (according to the definition in the hypothesis field) will be randomised to receive either valsartan 80 mg once daily or placebo using Interactive Web

Response System (IWRS). A total of 120 subjects consisting of 40 normal controls and 40 patients in each treatment arm will be recruited.

Treatment duration is for 6 months. At the end of 6 months blood tests and scan measurements are repeated and compared with baseline values.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Valsartan

Primary outcome(s)

Endothelial function. Baseline measurements and blood tests are done at study initiation and tests are repeated after 6 months and at this point primary and secondary endpoints are measured.

Key secondary outcome(s)

1. Carotid-intima media thickness
2. Left ventricular mass
3. Insulin resistance
4. Inflammatory markers
5. Coagulation factors

Baseline measurements and blood tests are done at study initiation and tests are repeated after 6 months and at this point primary and secondary endpoints are measured.

Completion date

31/12/2011

Eligibility**Key inclusion criteria**

1. Individuals with metabolic syndrome without diabetes
2. Male or female at least 18 years and less than 80 years
3. Provision of signed informed consent form
4. Females of child-bearing potential (i.e., females who are not chemically or surgically sterilised or females who are not post-menopause) must have a negative urine or blood pregnancy test at enrolment and be willing to use two methods of reliable contraception, one of which must be a barrier method

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 Years

Sex

All

Key exclusion criteria

1. Prior history of overt coronary artery disease, cardiac failure, peripheral vascular disease, cerebrovascular disease or diabetes
2. History of significant renal or hepatic disease
3. Pregnant or lactating women
4. Severe hypertension (blood pressure [BP] greater than 180/110 mmHg)
5. Current antihypertensive treatment
6. Current drug therapy directly acting on the renin-angiotensin-aldosterone system
7. Chronic anaemia (haemoglobin less than 10 g/L)
8. Inadequate carotid ultrasonographic/echocardiographic images
9. Excessive alcohol consumption
10. Significant valvular disease
11. History of primary myocardial disease, e.g. dilated cardiomyopathy, viral myocarditis, hypertrophic cardiomyopathy
12. Previous enrolment or randomisation of treatment in the present study
13. Participation in another investigational drug/interventional study in the last 30 days

Date of first enrolment

01/01/2008

Date of final enrolment

31/12/2011

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre**Consultant Cardiologist**

Manchester

United Kingdom

M13 9WL

Sponsor information

Organisation

Central Manchester and Manchester Children's Hospitals NHS Trust (UK)

ROR

<https://ror.org/00he80998>

Funder(s)**Funder type**

Industry

Funder Name

Novartis Pharmaceuticals UK Limited (UK)

Results and Publications**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration