

A 52 week double blind randomised controlled trial comparing the effect of rosiglitazone versus placebo on the prevention of progression of atherosclerosis in high risk patients without diabetes

Submission date 20/12/2005	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 20/12/2005	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 05/04/2012	Condition category Circulatory System	☐ 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

Protocol serial number
P04.232; NTR307

Study information

Scientific Title

Acronym

RUBENS

Study objectives

The metabolic syndrome and its visceral adiposity may well be beneficially influenced by peroxisome proliferator-activated receptor (PPAR)-alpha agonist, by redistributing fat mass from central to peripheral stores and improving insulin resistance. The inflammatory atherosclerotic response, as monitored by C-reactive protein (CRP), may also directly be beneficially influenced by PPAR-alpha agonists in human subjects. In addition, we hypothesise that thiazolidinediones will beneficially influence intima-media thickness (IMT) in subjects with the metabolic syndrome as defined by the inclusion criteria.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Received from the local medical ethics committee

Primary study design

Interventional

Study design

Randomised double blind placebo controlled parallel group trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Metabolic syndrome, atherosclerosis

Interventions

1. Lifestyle intervention
2. Rosiglitazone 8 mg (4 mg twice daily [bd]) versus placebo

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Rosiglitazone

Primary outcome(s)

1. Magnetic resonance (MR) assessment of the carotid artery wall
2. MR-measured hepatic, intra-abdominal and peripheral subcutaneous fat stores

Key secondary outcome(s)

1. Assessment of the changes in selected inflammatory and metabolic parameters amongst which changes in insulin resistance and inducible nitric oxide synthase (iNOS)
2. Cross-sectional assessment of the relation between the characteristics of the magnetic resonance image of the carotid arterial wall and circulating endothelial progenitor cells
3. The effect of rosiglitazone on CEPs after one year of treatment in subjects with high cardiovascular risk without diabetes mellitus
4. Optimisation of MR assessment of (complex) atherosclerotic plaques and other cardiovascular risk markers

Completion date

01/04/2007

Eligibility**Key inclusion criteria**

1. Males
2. Age: males greater than or equal to 50 years
3. Visceral obesity as determined by Wcr: males: greater than 94 cm
4. Two other metabolic syndrome criteria (According to IDF criteria 2005) and/or a positive family history for cardiovascular disease (coronary heart disease [CHD] and/or peripheral arterial disease [PAD] in first degree family member: males less than 55 years; females less than 60 years)
5. CRP greater than 1.8 mg/L
6. Subject who is willing and is able to provide a signed and dated written informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

Male

Key exclusion criteria

1. Severe obesity (body mass index [BMI] greater than 35 kg/m²)
2. Diabetes type 2 defined as fasting venous plasma glucose greater than 70 mmol/L, or HbA1c greater than 65%
3. Primary dyslipidaemia
4. A previous cardiovascular event, including Q-wave infarction on electrocardiography (ECG)
5. QTc time interval on baseline ECG greater than 450 ms
6. Heart failure New York Heart Association (NYHA) class I or higher
7. Hypoglycaemia
8. Presence of clinically significant hepatic disease (i.e., subjects with alanine aminotransferase [ALT], total bilirubin, or alkaline phosphatase greater than 25 times the upper limit of the normal laboratory range)

- 9. Subjects with creatinine clearance less than 40 mL/min calculated using the Cockcroft-Gault equation adjusted for ideal body weight
- 10. Contraindication for magnetic resonance imaging (MRI)-assessments
- 11. Risk of non-compliance

Date of first enrolment

26/09/2005

Date of final enrolment

01/04/2007

Locations

Countries of recruitment

Netherlands

Study participating centre

Leiden University Medical Centre (LUMC)

Leiden

Netherlands

2300 RC

Sponsor information

Organisation

Leiden University Medical Centre (LUMC) (Netherlands)

ROR

<https://ror.org/027bh9e22>

Funder(s)

Funder type

Industry

Funder Name

GlaxoSmithKline (Netherlands)

Alternative Name(s)

GlaxoSmithKline plc., GSK plc., GlaxoSmithKline plc, GSK

Funding Body Type

Government organisation

Funding Body Subtype

For-profit companies (industry)

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	28/10/2011		Yes	No