

Age related macular degeneration pharmacogenetics study

Submission date 28/05/2010	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 28/05/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 29/08/2013	Condition category Eye Diseases	☐ 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
7380

Study information

Scientific Title
Genotype and response to treatment for age related macular degeneration (ARMD): a multicentre, non-randomised, interventional, cohort study

Study objectives

There has been a major advance in our understanding of the genetic and environmental causes of age related macular degeneration (ARMD). Research has implicated smoking and genetic variants in the complement factor pathway and the HTRA1, vascular endothelial growth factor (VEGF) and a number of other genes of lesser effect, in susceptibility to ARMD.

There has also been a parallel advance in the ability to treat this common, blinding disorder using anti-VEGF based treatments, and in particular the VEGF antibody ranibizumab (Lucentis®). This proposal aims to test the hypothesis that response to intravitreal ranibizumab injections in ARMD is, at least in part, modulated by genotype. If genotype does predict response, alternative treatments could be used in those found to benefit least, increasing success rates, saving sight and reducing the need for unnecessary intravitreal injections.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Leeds East Research Ethics Committee approved in February 2009 (ref: 08/H1306/123)

Study design

Multicentre non-randomised interventional prevention and treatment trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Topic: Eye; Subtopic: Eye (all Subtopics); Disease: Ophthalmology

Interventions

This study aims to determine whether genotypes for single nucleotide polymorphisms (SNPs) in the complement factor H, HTRA1 and VEGF genes can predict response to treatment with ranibizumab in patients with ARMD.

The visual acuity change from baseline, in ETDRS letters, will be collected from patients who have completed 6 months of treatment for neovascular AMD with intra-vitreous ranibizumab therapy, given in accordance with the EMEA marketing authorisation. DNA will be collected from study participants and genotyped for SNPs in the following genes: HTRA1, VEGF and CFH. The data will be analysed to determine if there is evidence of an association between genotype and treatment outcome.

Follow-up length: 6 months

Study entry: registration only

Intervention Type

Other

Phase

Phase IV

Primary outcome(s)

Association of visual acuity letter score change after 6 months of treatment with intra-vitreous ranibizumab and CFH, HTRA1 and VEGF genotype.

Key secondary outcome(s)

1. Association of visual acuity letter score change after 6 months of treatment with intra-vitreous ranibizumab and baseline visual acuity
2. Smoking history
3. Sex
4. Lesion type
5. Number of injections
6. Prior treatment status

Completion date

01/03/2011

Eligibility**Key inclusion criteria**

1. Aged over 65 years, either sex
2. Affected with ARM
3. Currently under treatment with ranibizumab (Lucentis)
4. Patients with lesions of greatest linear diameter less than 5400 microns

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Senior

Sex

All

Key exclusion criteria

1. Patients with poor general health
2. Patients with other eye pathology likely to affect response to treatment
3. Patients with lesions of greatest linear diameter greater than 5400 microns
4. Patients currently being treated with other anti-VEGF agents (systemic or ocular)

Date of first enrolment

31/03/2009

Date of final enrolment

01/03/2011

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Leeds Teaching Hospitals NHS Trust

Leeds

United Kingdom

LS9 7TF

Sponsor information

Organisation

Leeds Teaching Hospitals NHS Trust (UK)

ROR

<https://ror.org/00v4dac24>

Funder(s)

Funder type

Research organisation

Funder Name

National Eye Research Centre (NERC) (UK)

Alternative Name(s)

National Eye Research Centre, SightResearchUK, SRUK, NERC

Funding Body Type

Private sector organisation

Funding Body Subtype

Universities (academic only)

Location

United Kingdom

Funder Name

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	01/02/2012		Yes	No
HRA research summary			28/06/2023	No	No