

Normal values for central retinal thickness asymmetry in healthy Caucasians

Submission date 27/02/2014	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 27/03/2014	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 16/06/2015	Condition category Eye Diseases	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

Glaucoma is a term that describes a group of eye conditions that affect vision. Several previous studies in glaucoma patients have shown the importance of structural changes in the retina, a complex layer of tissue at the back of your eye. Optical coherence tomography (OCT) is a technique which uses a light beam to scan the different layers of the retina and can detect very subtle changes. A new OCT software assesses any possible asymmetry between the two eyes and the upper and lower hemisphere in both eyes. Recent studies have found that retinal asymmetry may be the first sign in the development of glaucoma. However, at present we have no information regarding the 'normal' asymmetry values in healthy individuals, therefore it is hard to distinguish 'normal' asymmetry from asymmetries which may be early signs of glaucoma. Our aim is to study the retinal asymmetry that normally exists in healthy individuals.

Who can participate?

Healthy volunteers between the ages of 18 and 45 who have no eye disease and have normal visual acuity with no or minor correction (glasses or contact lenses).

What does the study involve?

Every volunteer will undergo a general eye examination (visual acuity and slit lamp examination) and an OCT scan.

What are the possible benefits and risks of participating?

Volunteers participating in our study may have the benefit of a detailed eye examination. The study has no extra risk in comparison to a general eye examination.

Where is the study run from?

Our study will run at the Department of Ophthalmology, Thy-Mors Hospital in Thisted, Denmark.

When is the study starting and how long is it expected to run for?

The study will run from March 2014 to July 2014.

Who is funding the study?

Department of Ophthalmology, Thy-Mors Hospital, Denmark.

Who is the main contact?

Janos Hargitai
janos.hargitai@rn.dk

Contact information

Type(s)

Scientific

Contact name

Dr Janos Hargitai

Contact details

Højtoftevej 2

Thisted

Denmark

7700

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janos.hargitai@rn.dk

Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Normal values for central retinal thickness asymmetry in healthy Caucasians, measured by Spectral-Domain optical coherence tomography (OCT) posterior pole asymmetry analysis

Study objectives

To determine the normal variation in central retinal thickness asymmetry in healthy Caucasians using Spectralis HRA+OCT's posterior pole asymmetry analysis.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Regional Ethics Committee of North Jutland (Den Videnskabetiske Komité for Region Nordjylland), 24/01/2014

Study design

Cross-sectional study

Primary study design

Observational

Study type(s)

Other

Health condition(s) or problem(s) studied

Retina

Interventions

1. Visual acuity measured using the Snellen Chart
2. Retinal thickness and RNFL measured by Spectralis HRA+OCT's volume and circle scan mode, respectively

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Right eye - left eye retinal thickness asymmetry of the paired 64 cells in the posterior pole retina thickness map
2. Superior-inferior retinal thickness asymmetry of the paired 32 cells

Outcome measures will be assessed at baseline.

Key secondary outcome(s)

1. Variance in asymmetry across the macula
2. Association between the temporal RNFL thickness and the mean central retinal thickness
3. Effect of age and sex on interocular asymmetry

Outcome measures will be assessed at baseline.

Completion date

01/07/2014

Eligibility

Key inclusion criteria

1. Healthy volunteer
2. Caucasian
3. Age 18-45 years

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Upper age limit

45 years

Sex

All

Key exclusion criteria

1. Visual acuity < 1.0
2. Spherical equivalent > 1.5 D
3. Morphological changes in macula
4. Retinal nerve fiber layer (RNFL) thickness out of normal limits

Date of first enrolment

01/03/2014

Date of final enrolment

01/07/2014

Locations**Countries of recruitment**

Denmark

Study participating centre

Højtoftevej 2

Thisted

Denmark

7700

Sponsor information**Organisation**

Thy-Mors Hospital (Denmark)

Funder(s)**Funder type**

Hospital/treatment centre

Funder Name

Thy-Mors Hospital (Denmark)

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	01/06/2015		Yes	No