Effect of optical quality on retinal thresholds

No registrations found.

Ethical review	Not applicable
Status	Pending
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON21576

Source Nationaal Trial Register

Health condition

Glaucoma

Sponsors and support

Primary sponsor: University Medical Center Groningen (UMCG) **Source(s) of monetary or material Support:** University Medical Center Groningen (UMCG)

Intervention

Outcome measures

Primary outcome

Retinal sensitivity thresholds, measured by means of perimetry, as a function of ocular aberrations.

Secondary outcome

Change in retinal sensitivity thresholds, measured by means of perimetry, as a function of ocular aberrations before and after clear lens extraction in PAC patients

1 - Effect of optical quality on retinal thresholds 25-06-2025

Other

Corneal aberrations, ocular biometry, ocular scatter, intraocular pressure, visual acuity and refraction. Cases and controls are matched for age and gender; visual field damage and refraction are used for descriptive statistics, to characterize the study population.

Study description

Background summary

The impact of optical aberrations on perimetry may be different in healthy eyes than in glaucoma patients. Although the visual loss for the last group is mainly due to the disease, it is important to understand which level of optical quality has an impact on perimetry for these patients and whether this may depend on the type of glaucoma.

Therefore, we propose the current study to further understand these factors. The main study parameter of this research is the relation between optical quality and perimetry in healthy and glaucoma eyes, both PACG and POAG. We intend to include both phakic and pseudophakic patients in each group. This is to cover a wider range of peripheral optical quality because current IOL technology increases peripheral aberrations.

The current study is also aimed to have additional outcome variables. CLE has been suggested as a therapy for PAC. However, there are no reports in the literature of the optical and visual performance of PAC patients after CLE. Therefore, an additional outcome variable is to study the effect of pseudophakia on ocular aberrations and perimetry for PAC patients. We propose to measure PAC patients undergoing CLE before and after the surgery, so that, we can relate how a change in optical quality translates into perimetry for the same subject.

Study objective

To determine the influence of optical quality on perimetry for phakic and pseudophakic healthy and glaucoma patients.

To determine the influence of CLE on perimetry and optical quality for PAC patients.

Study design

n/a

Intervention

No

Contacts

Public L. Scanferla Groningen The Netherlands Scientific L. Scanferla Groningen The Netherlands

Eligibility criteria

Inclusion criteria

Phakic and pseudophakic POAG and PACG patients and phakic PAC patients scheduled for CLE, who visit the ophthalmology clinic at University Medical Center Groningen, that have provided the signed informed consent form and meet the inclusion-exclusion criteria. Healthy subjects between ages 50 and 75, who have provided the signed informed consent form and returned the questionnaire with results which do not indicate ophthalmic abnormalities.

Exclusion criteria

POAG patients

Visual acuity less than 0.8

Axial length lower than 23mm

History of closed or blocked angle

Myopia higher than 5D

For pseudophakic patients only, IOL model implanted different than Tecnis Monofocal, Model ZCB00

Phakic PACG patients

Visual acuity less than 0.8

Axial length higher than 23mm

For pseudophakic patients only, IOL model implanted different than Tecnis Monofocal, Model ZCB00

Phakic PCA scheduled for CLE

Visual acuity less than 0.8

Non-glaucomatous visual field loss

IOL model to be implanted different than Tecnis Monofocal, Model ZCB00

Axial length higher than 23mm

Healthy Subjects

Visual acuity less than 0.8

Corneal refractive (LASIK, LASEK, RK, PRK, etc.)

Any visual field loss

Intraocular pressure above 21 mmHg

Positive family history of glaucoma

Study design

Design

Study type: Intervention model: Observational non invasive Other

4 - Effect of optical quality on retinal thresholds 25-06-2025

Control: N/A , unknown

Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-01-2018
Enrollment:	40
Туре:	Anticipated

Ethics review

Not applicable Application type: Not applicable

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL6453
NTR-old	NTR6631
Other	UMCG Research Register : 201700546

Study results