Light on glaucoma: adaptation time and the influence of changing light intensity on contrast sensitivity.

Published: 01-09-2015
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The objective of this study is to determine the light and dark adapation time and contrast sensitivity in changing background light conditions.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Glaucoma and ocular hypertension
Study type	Observational non invasive

Summary

ID

NL-OMON42446

Source
ToetsingOnline

Brief title
Light on glaucoma

Condition

- Glaucoma and ocular hypertension

Synonym
glaucoma, POAG

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Groningen
Source(s) of monetary or material Support: Ministerie van OC&W,glaucoom fonds

Intervention

Keyword: Adaptation time, Contrast sensitivity, Glaucoma, Light intensity

Outcome measures

Primary outcome

Measurement of (1) the light- and dark adapation and (2) the contrast

sensitivity in changing background light conditions.

Secondary outcome

N/A

Study description

Background summary

Many patients with glaucoma experience difficulties when going form light to dark and vice versa. These difficulties are not only present in patients with severe glaucoma, but also in patients with a normal visus and an intact visual field.

We already researched the influence of light- and darkadaptation using a questionnaire (METc 2014/338) and confirmed the difficulties described above. In addition, patients with glaucoma experience longer adaptation times compared with healthy subjects. In a former project (METc 2014/409) we researched the influence of static light conditions. Now we continue with dynamic light conditions.

Study objective

The objective of this study is to determine the light and dark adapation time and contrast sensitivity in changing background light conditions.

Study design

Case-control study.

Study burden and risks

A single visit, in which the light and dark adaptation time and the contrast sensitivity in changing background light conditions will be measured. In addition, letters will be read in the standardized light conditions. For healthy subjects there are few extra tests to check the healthy state of the eye. Total time invested is 1.5 to 2 hours. In healthy subjects, it is possible that an eye disease is discovered during the course of this study. The resulting psychological stress to the subject can be a disadvantage. However, the advantage is an early start of adequate treatment. All measurements are conducted using optical techniques that do not touch the eye and therefore are completely harmless. There is no risk during the experiments. No mydriasis (pupil dilation) will be implemented.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Glaucoma patients aged 40-70 years who visit the ophthalmology outpatient department of the UMCG, provide written informed consent form and meet the inclusion- exclusion criteria. ;Healthy subjects will consist of people who have signed in, without ophthalmic abnormalities and provide written informed consent.

Exclusion criteria

Glaucoma patients:
- Visual acuity below 1.0 (below 50 years of age) or below 0.8 (above 50 years).
- Visual field defects not caused by glaucoma;Healthy subjects:
- Visual acuity below 1.0 (below 50 years of age) or below 0.8 (above 50 years).
- Visual field defects which are not understood.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	18-09-2015
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO Date:	01-09-2015
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Groningen (Groningen)

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
CCMO	NL54016.042.15