Effect of sport on retinal nerve fibre layer thickness

Published: 07-10-2010
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The aim of this study is to determine whether the hydration status influences the RNFL thickness.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Retina, choroid and vitreous haemorrhages and vascular disorders
Study type	Observational non invasive

Summary

ID

NL-OMON34391

Source
ToetsingOnline

Brief title
sport-OCT

Condition

- Retina, choroid and vitreous haemorrhages and vascular disorders
- Neurological disorders of the eye

Synonym
thickness of nerve fibres in the eye, thickness of retinal nerve fibres

Research involving
Human

Sponsors and support

Primary sponsor: Vrije Universiteit Medisch Centrum
Source(s) of monetary or material Support: charity

Intervention

Keyword: OCT, RNFL, sport

Outcome measures

Primary outcome

Delta RNFL.

Secondary outcome

n/a

Study description

Background summary

The measurement of the retinal nerve fibre layer (RNFL) thickness using OCT is accurate to 3-5 um. Neurons can be up to 20 um thick. This implies that potentially OCT allows to detect changes in cellular volume. A natural situation where changes in cellular volume occur is sport related dehydration. After sport we feel thirsty and have a drink in order to rehydrate. Here we want to measure the thickness of the RNFL before and after sport and after rehydration.

Study objective

The aim of this study is to determine whether the hydration status influences the RNFL thickness.

Study design

A charity run organised for the sixth time by the VUmc. Twenty runner and 20 bystanders who volunteer to the OCT study will be measured at 3 time-points, before and after the run as well after having a free sport drink. Standard statistical techniques will be applied to investigate whether there was a change in the RNFL thickness.

Study burden and risks

There is no risk associated with the OCT investigation.

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

healthy, age 18-60

Exclusion criteria

any eye disease

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:	Other

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	23-10-2010
Enrollment:	40
Type:	Actual

Ethics review

Approved WMO

Date:	07-10-2010
Application type:	First submission
Review commission:	METC Amsterdam UMC

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	NL33805.029.10