A method for non-invasive intracranial pressure measurement in glaucoma

Gepubliceerd: 03-11-2016 Laatst bijgewerkt: 18-08-2022

The changes in DPOAEs from upright to 30 degrees HDT will be greatest for subjects who are expected to have the lowest ICP (primarily NTG subjects). Alternatively, the least amount of change in DPOAEs will occur in subjects who are expected to have...

Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON27286

Bron
NTR

Aandoening

Glaucoom
Niet-belastende
Intracraniele druk
Distortion Product Otoacoustic Emissions

Ondersteuning

Primaire sponsor: UMCG
Overige ondersteuning: Marie Curie

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The primary objective is to evaluate the use of DPOAEs as a representation of ICP in Glaucoma patients by investigating changes in DPOAE amplitudes and phase angles with

changes in posture in subgroups of glaucoma patients and in healthy controls.

Toelichting onderzoek

Achtergrond van het onderzoek

The relationship between intraocular pressure (IOP) and intracranial pressure (ICP) is a crucial aspect of the pathology of Glaucoma. Alterations in either IOP or ICP that lead to a change in the pressure gradient between the two threaten the neural tissue in the eye and, if left untreated, can lead to blindness. Currently the only reliable methods of measuring ICP are by lumbar puncture or intraventricular catheter, two extremely invasive techniques. It is therefore necessary to establish an accurate non-invasive measurement of ICP for evaluating the cause and progression of Glaucoma. Current research shows that Distortion Product Otoacoustic Emissions (DPOAEs) may be able to accurately represent changes in ICP.

Doel van het onderzoek

The changes in DPOAEs from upright to 30 degrees HDT will be greatest for subjects who are expected to have the lowest ICP (primarily NTG subjects). Alternatively, the least amount of change in DPOAEs will occur in subjects who are expected to have the highest ICP (primarily the high IOP, non glaucomatous subjects).

ICP = Intracranial pressure; IOP = Intraocular pressure; DPOAE = Distortion product otoacoustic emissions

Onderzoeksopzet

N/a

Onderzoeksproduct en/of interventie

N/a

Contactpersonen

Publiek

K. Westra

Groningen
The Netherlands

Wetenschappelijk

K. Westra
Groningen
The Netherlands

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

50-70 years of age

Presence of DPOAEs in one ear

For healthy controls: Upright IOP of 21mmHg or lower

For high pressure glaucoma: Diagnosed Glaucoma, upright IOP over 21mmHg before the onset of IOP lowering treatment, and established disease progression rate based on perimetry

For normal tension glaucoma: Diagnosed Glaucoma, upright IOP of 21mmHg or lower with or without IOP lowering treatment, and established disease progression rate based on perimetry

For high IOP with no glaucoma: Upright IOP of 22mmHg or higher

Written informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

No presence of DPOAEs

For healthy controls, any eye disease or family history of glaucoma

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	31-01-2017
Aantal proefpersonen:	80
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL6053
NTR-old	NTR6200
Ander register	: 201600875

Resultaten