The effect of Carbamazepine on Hearing

Published: 26-02-2014
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To test the hypothesis that the resonant frequencies in the basilar membrane in the inner ear are shifted upward while using Carbamazepine.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON40099

Source
ToetsingOnline

Brief title
Carbamazepine and Hearing

Condition

- Other condition

Synonym
n.a.

Health condition

Het onderzoek heeft geen betrekking op een aandoening, maar op het normale gehoor

Research involving
Human

Sponsors and support

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

Intervention

Keyword: Carbamazepine, Hearing, Otoacoustic Emissions

Outcome measures

Primary outcome

Shift of SOAE frequencies, related to Carbamazepine usage.

Secondary outcome

N/A

Study description

Background summary

Carbamazepine is known to affect pitch perception. Patents with absolute pitch, that use Carbamazepine, describe that the pitch of musical instruments is too low while they are using the drug. We hypothesize that Carbamazepine results in an upward shift of the resonance frequencies of the basilar membrane in the inner ear.

Study objective

To test the hypothesis that the resonant frequencies in the basilar membrane in the inner ear are shifted upward while using Carbamazepine.

Study design

Spontaneous otoacoustic emissions will be recorded in patients that start or stop using carbamazepine, as advised by their physician. There will be a SOAE registration both when they are using, and when they are not using the drug, respectively. In addition, there will be standard tone audiometry.

Study burden and risks

Their are no risks involved in study participation. There will be two measurement sessions. The total length of each session is 20 minutes. Measurement do not require significant effort by the participant. Study participation does not have advantages or disadvantages for the subjects.

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

- 18 * age * 45
- normal hearing
- detectable spontaneous otoacoustic emissions in at least one ear
- patients that use carbamazepine and have been advised to stop using the drug, or patients that are advised to start using the drug.

Exclusion criteria

No detectable spontaneous otoacoustic emissions

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	24-09-2014
Enrollment:	5
Type:	Actual

Ethics review

Approved WMO

Date:	26-02-2014
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	NL40441.042.12