Dynamic Visual Acuity of Patients with Neuritis Vestibularis

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Inner ear and VIIIth cranial nerve disorders
Study type	Interventional

Summary

ID

NL-OMON32558

Source
ToetsingOnline

Brief title
Dynamic Visual Acuity - Neuritis Vestibularis

Condition

- Inner ear and VIIIth cranial nerve disorders

Synonym
infection of the inner ear, Neuritis Vestibularis

Research involving
Human

Sponsors and support

Primary sponsor: TNO
Source(s) of monetary or material Support: ministerie van Defensie en Veiligheid

Intervention

Keyword: Dynamic Visual Acuity, Neuritis Vestibularis, Vestibulo Ocular Reflex, Visual acuity testing

Outcome measures

Primary outcome

The primary independent variable is whether the participant has been diagnosed

with Neuritis Vestibularis, and if so, at which side.

The primary dependent variable is the threshold per subtest. We are

particularly interested in the threshold values of the VOR subtests (where the

test symbol is presented when the head moves from left to right or the other

way around) with respect to the static baseline subtest.

Secondary outcome

A secondary independent variable is when Neuritis Vestibularis developed and to

what extent the patient still experiences problems (as measured through the

questionnaires).

Study description

Background summary

The Neuritis Vestibularis experiment will be part of the project *Dynamic Visual Acuity* which is part of the Defense and Security programme *Improved Performance at Motion*. Many military operations are characterized by (more than average) motion, for example in vehicles. This results in degraded performance. The aim of the programme is to collect knowledge that can be used to diminish negative effects of motion, for example through technological developments, training and selection.

The project *Dynamic Visual Acuity* investigates visual acuity during motion -

both self-motion and motion of objects. In conventional visual acuity tests, the observer judges static test symbols while being static her- or himself, without temporal constraints of judging time. This does not correspond with a large part of our daily lives. A good static visual acuity does not necessarily mean that the dynamic visual acuity is good as well, since dynamic visual acuity involves many extra processes that may all be impaired (for example attention and eye movements).

We are developing a new dynamic visual acuity test. It consists of nine short subtests where the test symbols and the head are static or move in a certain way. We would like to test different groups of people (such as vestibular patients, people under influence of alcohol or fatigue) where we expect to find specific test results. We expect that Neuritis Vestibularis patients score relatively bad on the vestibulo-ocular reflex (VOR) subtests where they have to Judge test symbols while moving their heads.

Study objective

The objective of he study is to develop and evaluate a dynamic visual acuity test, with an added value over the conventional static visual acuity test. We hope that this test can eventually be used as a (military) selection tool and as a test that can be performed on-site to determine whether someone sees well enough dynamically in order to perform a certain task. If the results are worse than average, the test could provide a first indication of the type of problem that may be the cause. Other potential applications are the evaluation of therapies or medication and monitoring recovery of for instance mild traumatic brain injury.

Study design

For the Neuritis Vestibularis experiment we would like to apply the dynamic visual acuity test to Neuritis Vestibularis patients and compare the results to those of healthy controls. We also ask the participants to fill out two questionnaires: the Dizziness Handicap Inventory (25 questions about physical, functional and emotional impairments of the participant) and the Activities Balance Confidence Scale (the participant rates 16 acivities with respect to how confident he or she feels when performing them).

Intervention

The dynamic visual acuity test and questionnaires.

Study burden and risks

We do not think that participants run any serious risk. The Neuritis Vestibularis patients could dislike the head movements they are asked to make,

in which case they can (of course) quit the experiment. The burden mainly consists of the time they are asked to spent to come to the experimental site and perform the experiment.

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

- Neuritis Vestibularis patient for not longer than a year
- Living in or close to Apeldoorn
- Control subjects: age and gender matched to patients

Exclusion criteria

Younger than 18 years

Study design

Design

Study type:	Interventional
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):	13-04-2010
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO

Date:	18-12-2009
Application type:	First submission
Review commission:	METC Brabant (Tilburg)

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	NL30804.028.09