Minival Interval Assesment in Parkinsons Disease

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Ethical review	Approved WMO
Status	Pending
Health condition type	Movement disorders (incl parkinsonism)
Study type	Observational non invasive

Summary

ID

NL-OMON31870

Source
ToetsingOnline

Brief title
timePD

Condition

- Movement disorders (incl parkinsonism)

Synonym
movement disorders, Parkinson's disease

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Groningen
Source(s) of monetary or material Support: universiteitsfonds op basis van publieke donatie

Intervention

Keyword: bradykinesia, Parkinson's disease, temporal estimation

Outcome measures

Primary outcome

The differences between the correctly judged stimuli will be used to detect differences between the PD group and controls.

Secondary outcome

The correlation coefficient between hypokinesia (objectified by means of reaction times and standardized tests) and the amount of correctly judged stimuli will be used to detect differences within the PD group.

Study description

Background summary

Parkinson*s disease (PD) is a neurodegenerative disease in which besides motor also perceptual disturbances are present. Recently we discovered that PD patients are impaired in estimating the speed of moving objects (METc 2006-239). This was in line with an earlier conducted fMRI paradigm (METc 2006-082), in which a role for the basal ganglia (BG) in velocity estimation was found. These two findings brought a more profound in the role of the BG in the processing of temporal information and are consistent with existing literature.

In our behavioural experiment (METc 2006-239) we used the indications *fast* and *slow* that needed to be attributed to moving objects. This method enabled us to objectify how subjects differentiate between various velocities. However, by using this paradigm not enough information could be acquired to quantify which velocities were judged similar. By using changes in velocity it is possible to find out at which threshold velocities are judged equal.

Study objective

In the present study we aim to answer the question whether PD patients have a higher threshold in detecting changes in velocity compared to age-matched

controls. Besides that we aim to find out whether a correlation exists between bradykinesia and the threshold at which changes in velocity are detected.

Study design

PD patients will be recruited from an existing database of the movement disorders working party of the UMCG. An age matched control group will be recruited from relatives of PD patients and by means of external recruitment by means of posters distributed inside the UMCG.

The experiment will last two times 15 minutes in which subjects will perform a stimulus-response task. In the first task subject watch a ball that moves over a screen and changes in direction and velocity after it hits the upper edge of the screen. The extend in which this velocity changes will vary. When subjects detect a change in velocity they have to press a button. In the second task, subjects watch a ball that alternately moves from left to right and vice versa over a screen. The speed of this ball will vary across stimuli in which the fastest are not longer observed as moving. When subjects detect a moving ball they have to press a button.

Study burden and risks

The extend of burden is based on our previous experiments virtually absent

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

UPDRS III score >10 <30

Exclusion criteria

- decreased visual aquity
- relevant neurospychiatric comorbidity
- dementia

Study design

Design

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

Primary purpose: Diagnostic

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2008
Enrollment:	40
Type:	Anticipated

Ethics review

Approved WMO
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	NL23525.042.08