Dynamics of the wrist in patients with Myoclonus Dystonia. Measurements on the reflexive feedback system.

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The aim of this study is to gain understanding of the functioning of spinal reflexes in patients with MD, using a new method involving EMG, EEG and the wrist manipulator.

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

Summary

ID

NL-OMON29782

Source ToetsingOnline

Brief title Wrist-dynamics in MD

Condition

• Movement disorders (incl parkinsonism)

Synonym Movement disorder, Muscle Jerks

Research involving Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum Source(s) of monetary or material Support: NWO (Vidi-beurs)

Intervention

Keyword: Dynamics, Dystonia, Reflexes, Wrist

Outcome measures

Primary outcome

Patients have been found to have a DYT-11 positive genetic test result. They

have also been diagnosed as having Myoclonus Dystonia.

Another important variable is the modulation of spinal reflexes. This

modulation is compared between the two groups (patients and controls).

Secondary outcome

na

Study description

Background summary

Myoclonus Dystonia is a movement disorder with autosomal dominant inheritance and clonically characterized by myoclonic jerks and dystonic postures or movement of the upper body, combined with psychiatric phenomena such as obsessive compulsive disorder.

The measurements involve a wrist manipulator. This is a device with which spinal reflexes can be exactly quantified. It consists of a handhold which the subject must hold onto. The subject has to keep his/her hand as motionless as possible, while the wrist manipulator will apply a (small) dynamic force. The subject is presented the deviation and the zero-position of the handle through visual feedback. The EMG, EEG, as well as the deviation and force of the handhold are recorded.

The modulation of spinal reflexes is the reflexive counter-force applied bu the subject, as a function of the frequency of movement of the wrist manipulator. It is an exact measurable quantity for the quality of the reflexive feedback system.

Study objective

The aim of this study is to gain understanding of the functioning of spinal reflexes in patients with MD, using a new method involving EMG, EEG and the wrist manipulator.

Study design

Ten controls are matched to ten patients with MD with regards to age and gender. Measurements are taken to examine the functioning of spinal reflexes in all twenty subjects. Differences between patients and controls are examined; these differences will be investigated with the help of a model for the workings of spinal refleses.

Study burden and risks

na: The investigation is completely non-invasive

Contacts

Public Academisch Medisch Centrum

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Trial sites

Listed location countries

Netherlands

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Eligibility criteria

Age Adults (18-64 years) Elderly (65 years and older)

Inclusion criteria

For patients: DYT-11 positive and clinically positive diagnosis of Myoclonus Dystonia

Exclusion criteria

Pregnancy, use of neuroleptic drugs

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:	Pending
Start date (anticipated):	06-01-2006
Enrollment:	20
Туре:	Anticipated

Ethics review

Approved WMO

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Application type: Review commission:

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
 NL12565.018.06