

Tremor in Dystonia and Essential tremor.

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Reduced tremor power during transcranial alternating current stimulation over primary motor cortex (at tremor frequency and phase-locked to the ongoing tremor).

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON29165

Bron

Nationaal Trial Register

Verkorte titel

TREMOR-DTET

Aandoening

English: Dystonic tremor, Dystonia, Essential tremor, tacs

Dutch: Tremor bij Dystonie, Dystonie, Essentiële tremor, tacs, beven

Ondersteuning

Primaire sponsor: Donders Institute for Brain, Cognition and Behaviour. Centre for Cognitive Neuroimaging.

Kapittelweg 29 6525 EN Nijmegen

Overige ondersteuning: Hersenstichting (Dutch brain foundation)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

- 1) phase specific tremor power suppression during M1 tacs, in ET vs DT

- 2) phase specific tremor power suppression during Cerebellar tacs, in ET vs DT

Toelichting onderzoek

Achtergrond van het onderzoek

“In this study we will investigate whether frequency and phase specific transcranial alternating current stimulation (TACS) over the primary motor cortex and cerebellum influences tremor in dystonia and essential tremor. Outcome measures are tremor power (based on accelerometry) and tremor related cerebral activity and connectivity (combined TACS-fMRI). In addition, we will study the cerebral mechanisms underlying tremor in both disorders by using combined EMG-fMRI and GABA-MRS.”

Doel van het onderzoek

Reduced tremor power during transcranial alternating current stimulation over primary motor cortex (at tremor frequency and phase-locked to the ongoing tremor).

Onderzoeksopzet

Not applicable, 2 visits for each participant, outcome measures divided over the two days.

Onderzoeksproduct en/of interventie

Transcranial alternating current stimulation (tacs) over primary motor cortex and cerebellum at tremor frequency and phase locked to ongoing tremor (as measured with accelerometry). Stimulation during 20 blocks of 30s, at 18 degree phase difference increments around the phase circle (random ordering, phase difference between ongoing tremor and tacs).

Contactpersonen

Publiek

Freek Nieuwhof
Nijmegen
The Netherlands

Wetenschappelijk

Freek Nieuwhof
Nijmegen

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Essential tremor:

- Clinical diagnosis of essential tremor
- Postural tremor of both hands
- Onset of tremor before the age of 65

Dystonic tremor:

- Clinical diagnosis of dystonic tremor
- Primary focal / segmental dystonia
- Presence of postural tremor of at least one arm (which may or may not be the dystonic limb)

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Neurological co-morbidity
- Moderate to severe head tremor (to avoid artifacts caused by extensive head motion during scanning)
- Cognitive dysfunction (clinical diagnosis of mild cognitive impairment or dementia)
- Considerable diagnostic doubt between essential and dystonic tremor (no consensus reached in team meetings neurologists or considerable doubt in medical record).
- Use of anti-tremor medication other than propranolol
- Any contraindications for MRI or transcranial stimulation (e.g. non compatible metal implants, epilepsy, active implants).

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Niet-gerandomiseerd
Blindering:	Enkelblind
Controle:	Geneesmiddel

Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	01-12-2017
Aantal proefpersonen:	32
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies	
Datum:	30-11-2017
Soort:	Eerste indiening

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	NL6686
NTR-old	NTR6856
Ander register	NL60335.091.17 : HA2016-02-01

Resultaten

Samenvatting resultaten

N.A.