MEG language and memory mapping: a comparison with WADA.

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Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON24624

Bron
NTR

Verkorte titel
MEG-WADA

Aandoening

candidates for brain surgery with epilepsy and/or brain tumours.

Ondersteuning

Primaire sponsor: VUmc
Overige ondersteuning: Internal

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The raw recorded MEG signals will be post-processed according to standard procedures, and artefact-free epochs will be selected by an experienced investigator. These epochs are then

used to localise underlying neuronal activity using an MEG beamformer, in combination with the patient's anatomical MRI. A lateralisation index will be computed on the basis of the reconstructed task-related neuronal power changes. In addition, a lateralisation index will be obtained from the Wada procedure by experienced neuropsychologists who are blinded to the MEG results.

Toelichting onderzoek

Achtergrond van het onderzoek

To reduce the risk of aphasia or amnesia following surgical resection in patients suffering from epilepsy
and/or brain tumours it is necessary to identify language and memory presentation pre-surgically. Of
importance here is to determine whether there is a dominant hemisphere with regards to language and
memory function. Currently, the gold standard for the evaluation of lateralised language and memory
mapping is the Wada procedure. Recent advances in neuroimaging techniques however might provide us
with opportunities to replace this invasive procedure with a non-invasive and cost-effective alternative to
conduct pre-surgical assessment of language and memory function, and in addition, help in the planning
of grid implantations.

Our overall aim is to create a cost effective non-invasive method of pre-surgical assessment of language
and memory function using MEG scanning. We propose a research project with the key objective to
evaluate the effectiveness of a Dutch implementation of a language/memory stimuli and analysis protocol.

Doel van het onderzoek

Our overall aim is to create a cost effective non-invasive method of pre-surgical assessment of language
and memory function using MEG scanning. We propose a research project with the key objective to evaluate the effectiveness of a Dutch implementation of a language/memory stimuli and analysis protocol.

Onderzoeksopzet

After inclusion of the last patient.

Onderzoeksproduct en/of interventie

Language and memory areas will be localised using Magnetoencephalography (MEG). The effectiveness of the protocol will be evaluated by comparison with Wada (intracarotid sodium amobarbital procedure) results.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Age between 18 and 85;

2. Has had, or will undergo, a Wada test;

3. Will undergo a MEG and MRI scan as part of a pre-surgical evaluation;

4. Written informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Unable to undergo an MRI scan;

2. Insufficient mastery of the Dutch language;

3. Inability to communicate adequately.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	01-07-2009
Aantal proefpersonen:	10
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	30-06-2009
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	NL1780
NTR-old	NTR1890
Ander register	METc VUmc; CWO VUmc; ABR : 09/124; 09-04; NL26907.029.09;
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten

N/A