Does MS grey matter pathology progress faster in regions with more damage in connected white matter?

Gepubliceerd: 04-10-2016 Laatst bijgewerkt: 18-08-2022

Our hypothesis is that MS grey matter pathology, and thereby disease burden and clinical outcome, can be better predicted by looking at damage in the connected white matter in early RRMS patients

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

Samenvatting

ID

NL-OMON23313

Bron
NTR

Verkorte titel
Rate of GM atrophy in MS

Aandoening

multiple sclerosis; white matter damage; grey matter atrophy

Ondersteuning

Primaire sponsor: VU University Medical Center
Overige ondersteuning: Dutch MS Research Foundation

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Three measures for WM damage will be assessed, i.e. lesion volume, lesion fractional anisotropy (FA) and NAWM FA, from which a composite WM damage score will be computed. High versus low WM damage scores will then be compared to the atrophy rates in the GM, based on subcortical volume and cortical thickness measures. From this, we can compare atrophy rates of each GM structure from baseline to year 1 between the group of patients with higher damage in the WM tracts connected to that GM structure on the one hand, and the group of patients with lower damage in those WM tracts on the other.
Similar calculations will be performed between year 1 and year 2 in order to determine whether a larger increase of WM damage over the first study year is predictive of faster subsequent GM atrophy in the second year.

Toelichting onderzoek

Doel van het onderzoek

Our hypothesis is that MS grey matter pathology, and thereby disease burden and clinical outcome, can be better predicted by looking at damage in the connected white matter in early RRMS patients

Onderzoeksopzet

Baseline (year 0), year 1 and year 2

Onderzoeksproduct en/of interventie

None

Contactpersonen

Publiek

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Patient group:

1. Minimum age 18 years

2. Clinically definite relapsing remitting MS for < 5 years

3. Either receiving no treatment, or receiving first line treatment for at least 6 months

4. Expanded Disability Status Score (EDSS) ≤ 5.0

5. Written informed consent

Control group:

1. Minimum age 18 years

2. Written informed consent

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Past or current clinically relevant non-MS neurological or psychiatric disorder(s)

2. Past or current clinically relevant (auto)immune disorder(s)

3. Treatment for MS with first line therapy for less than 6 months

4. Treatment for MS with second line therapy

5. Relapse and/or steroid treatment in past 3 months

6. Pregnancy

7. MRI incompatibility, e.g. metal objects in or around the body, claustrophobia or inability to lie still in the scanner

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	Niet-gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	01-10-2016
Aantal proefpersonen:	55
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	04-10-2016
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	NL5923
NTR-old	NTR6103
Ander register	METc VUmc : 2016.314

Resultaten