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Rehabilitation of functional muscle and motor capacity in neurodegenerative disease: Multiple Sclerosis research

Submission date	Recruitment status	[ ] Prospectively registered
19/08/2009	No longer recruiting	[ ] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
01/10/2009	Completed	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
01/10/2009	Nervous System Diseases	[ ] Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
050078 IWT TETRA

Study information

Scientific Title
Rehabilitation of functional muscle and motor capacity in neurodegenerative disease: a single centre placebo-controlled Multiple Sclerosis research trial

Acronym

MS rehabilitation

Study objectives
Regular and moderately intense rehabilitation of muscle strength improves functional capacity in multiple sclerosis (MS) patients.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics Board of Hasselt University approved on the 24th October 2005 (ref: CME 2005/233)

Study design
Single centre placebo-controlled clinical research trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Multiple sclerosis

Interventions
Patients will be subjected to different rehabilitation modes during a period of 24 weeks and according to a specific treatment protocol:
1. Control
2. Strength training
3. Strength training and electro-stimulation
4. Whole body vibration
5. Micro-electrotherapy

At baseline and following 12 and 24 weeks of therapy all endpoints will be measured.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
Measured at baseline, mid- (after 10 weeks intervention) and post-treatment (after 20 weeks of intervention):
1. Maximal isometric muscle strength of knee-extensors and flexors
2. Isotonic and isokinetic dynamic muscle strength using an isokinetic dynamometer
3. Functional performances
4. Blood samples
5. Motor control (surface electromyography [sEMG], in-phase and anti-phase motor coordination test equipment)
6. Quality of life (specific questionnaire) assessment

Key secondary outcome(s))
1. Visual Analogue Scale (VAS) measured before and after each training session
2. Borg Scale measured after each training session

Completion date
01/12/2007

Eligibility

Key inclusion criteria
1. MS patients (Expanded Standard Disbility Status Scale [EDSS] 0.5 - 3) that have functional muscle and motor functional disabilities
2. Males and females aged 20 - 65 years
3. 24-week availability

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
1. Any pathology that is a contra-indication for rehabilitation training
2. Wheelchair dependency
3. No present physiotherapy (preferably)

Date of first enrolment
01/11/2005

Date of final enrolment
01/12/2007

Locations

Countries of recruitment
Belgium

Study participating centre

Guffenslaan 39
Hasselt
Belgium
B-3500

Sponsor information

Organisation
IWT Vlaanderen (Instituut voor de aanmoediging van Innovatie door Wetenschap en Technologie in Vlaanderen) (Belgium)

ROR
https://ror.org/032xdry56

Funder(s)

Funder type
Research organisation

Funder Name
IWT Vlaanderen (Instituut voor de aanmoediging van Innovatie door Wetenschap en Technologie in Vlaanderen) (Belgium) (ref: 050078)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes