Cognitive deficits in Cerebellar Stroke Study

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To assess the outcome and pattern of frontal cognitive deficits between patients with cerebellar stroke compared to frontal stroke after three months of acute ischemic stroke with several validated neuropsychological tests and questionnaire

Ethical review	Approved WMO
Status	Will not start
Health condition type	Central nervous system vascular disorders
Study type	Observational non invasive

Summary

ID

NL-OMON38835

Source
ToetsingOnline

Brief title
CODECS

Condition

- Central nervous system vascular disorders
- Personality disorders and disturbances in behaviour

Synonym
Cerebellar Stroke, Stroke

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus MC, Universitair Medisch Centrum Rotterdam
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Cerebellum, Cognitive, Frontal syndrome

Outcome measures

Primary outcome

Outcome neuropsychological analysis

Secondary outcome

Size and lokalization of the stroke compared to neuropsychological outcome

Study description

Background summary

The cerebellum plays an important role in coordinating and timing of motor behaviour. Lesions in the cerebellum therefore cause a number of deficits such as ataxia, dysarthria and disturbed eye-movements. Although these common neurological deficits caused by cerebellar lesions are well described in literature, cognitive and neuropsychological impacts were for a long insufficiently highlighted. In the last two decades this has changed and several studies published on cognitive deficits after focal cerebellar damage. Moreover some studies suggest a role of the cerebellum in various neuropsychiatric diseases such as Attention Deficit-Hyperactivity Disorder (ADHD), Autism en Schizophrenia.

These cognitive and neuropsychiatric aspects of the cerebellum are caused by the connections with (pre)frontal cortex and limbic cortex. There are two known pathways in the cerebellum: The afferent pathways that project from the cortex via the pontine nuclei to the cerebellum and the efferent pathways from the deep cerebellar nuclei via the thalamus to the cerebral cortex. These cerebello-thalamo-cortical trajects end mostly in motor and non-motor areas of the prefrontal cortex. Within the cerebellum further divisions demonstrate prominent language and verbal memory tasks in right cerebellar hemisphere, while visuo-spatial tasks are located in left cerebellar hemisphere. However neuropsychiatric deficits are associated with lesions in the medial part of the cerebellum.

Cognitive repercussions that appear after cerebellar stroke are usually neglected in clinical settings because of the prominent motor deficits. Although studies with small patient groups and heterogeneous groups show

cognitive deficits, it has not affected treatment and clinical care after cerebellar stroke. Because of limited research it remains unclear whether cerebellar stroke patients show cognitive deficits and in which domain of the cerebellum is involved.

Study objective

To assess the outcome and pattern of frontal cognitive deficits between patients with cerebellar stroke compared to frontal stroke after three months of acute ischemic stroke with several validated neuropsychological tests and questionnaire

Study design

Observational, prospectvie, single centre study

Study burden and risks

No risk, Patients are seen at 3 months policlinical visit for neuropsyhological tests during 45 minutes.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

18 years or older;
cerebellar or frontal stroke

Exclusion criteria

Pre-existent cognitive deficits (Alzheimer*s disease, Parkinson*s disease or frontal lesions),
Speech deficits which interferes with normal communication (Aphasia or severe dysarthria)

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Will not start
Start date (anticipated):	01-01-2014
Enrollment:	120
Type:	Anticipated

Ethics review

Approved WMO

Date:	20-12-2013
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

Not approved

Date:	13-01-2025
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL45753.078.13