Neurophysiologic characterization of chronic shoulder pain following stroke

Published: 05-07-2007 Last updated: 08-05-2024

To neurophysiologically characterize the sensory and nociceptive system in stroke patients with (CVA+) and without (CVA-) shoulder pain versus healthy controls.

Ethical review	Approved WMO
Status	Pending
Health condition type	Central nervous system vascular disorders
Study type	Observational non invasive

Summary

ID

NL-OMON30985

Source ToetsingOnline

Brief title Characterization of shoulder pain following stroke

Condition

· Central nervous system vascular disorders

Synonym Cerebro Vascular Accident, Stroke

Research involving Human

Sponsors and support

Primary sponsor: Universiteit Twente Source(s) of monetary or material Support: Het Roessingh;Universiteit Twente

Intervention

Keyword: Evoked potentials, Hemiplegic shoulder pain, Quantitative sensory testing (QST),

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Stroke

Outcome measures

Primary outcome

Clinical sensory function, sensory thresholds to electrical and mechanical QST

before and after a cold pressor test, evoked potentials from cutaneous

electrical stimulation.

Secondary outcome

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Study description

Background summary

Shoulder pain is frequently observed in stroke patients and in some cases difficult to treat. Better prevention in the acute phase and optimization of treatment in the chronic phase after stroke may be accomplished when more is known about neurophysiologic mechanisms underlying the development and maintenance of shoulder pain following stroke.

Study objective

To neurophysiologically characterize the sensory and nociceptive system in stroke patients with (CVA+) and without (CVA-) shoulder pain versus healthy controls.

Study design

In this cross-sectional experiment, clinical en quantitative measures will be used in 2 seperate sessions. In Session 1, sensibility is tested with standard clinical neurological tests (touch, temperature and sharpness) and sensory thresholds are determined using electrical and mechanical quantitative sensory testing (QST) before and after a cold pressor test. In Session 2 the evoked potentials will be assessed in 25 subjects from each group using electro-encephalography (EEG).

Study burden and risks

The burden of participation is low. Both sessions take a maximum of 1.5 hours each and the experiments are non-invasive. There are no physical and mental risks of participation.

Contacts

Public Universiteit Twente

Postbus 217 7500 AE Nederland **Scientific** Universiteit Twente

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

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

Inclusion criteria

General: 18 years and older, legally competent, able to communicate, cognitively competent, informed consent. Stroke patients: unilateral brain infarct middle cerebral artery, at least 6 months post-stroke. Stroke patients with shoulder pain: chronic shoulder pain (at least 3 months)

Exclusion criteria

General: pregnancy, diabetes, MS, HIV/AIDS, not able to deal with used research methods, no compliance of instructions. Stroke patients: Shoulder pain before stroke, non-stroke related peripheral nerve damage. Stroke patients with shoulder pain: pain other than shoulder, non-stroke related shoulder pain. Stroke without pain and healthy controls: pain (acute or chronic) at time of experiment. Healthy controls: use of psychotropic medication or analgetics, peripheral nerve damage.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-08-2007
Enrollment:	135
Туре:	Anticipated

Ethics review

1.14/140

Approved WMO	
Date:	05-07-2007
Application type:	First submission
Review commission:	METC Twente (Enschede)

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 CCMO **ID** NL17316.080.07