

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jul 2026

The effects of low frequency Transcranial Magnetic Stimulation(TMS) and sham condition TMS on behavioural language in post stroke broca aphasia in the farshchian hospital at 2015- 2016

Protocol summary

Summary

Objectives: Broca aphasia is characterized by nonfluent speech that is agrammatic and inability to write, repeat, name and comprehend which is occurred to 20 percent of patients of ischemic stroke. The present study investigated a method treatment for this disorder that is efficient and is known as TMS. So we decided to study the effects of TMS on clinical outcomes patients with post stroke broca aphasia. Design: This study is double-blind clinical trial which be carried out on 12 patients with post stroke broca aphasia. Setting and conduct: Patients are randomly divided into two groups of 6 people. The intervention group will receive Low frequency (1 Hz) rTMS to the right hemisphere for 30 minutes per day for 10 days.both intervention and control group have speech therapy at the end of every session. Participants including major eligibility criteria:Inclusion criteria:Patient with left hemisphere stroke; 45-80 yrs old; Right-handed; More than 1 month from stroke onset.Exclusion criteria: Metal implants in the body; Medical history of seizures in last year; perviuse speech thrapy.intervntion: 10 session of TMS+speech therapy. main outcome measures: Persian Diagnostic Aphasia Battery Before rTMS(baseline), after the completion of 10 session of treatment (rTMS+speech therapy).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015050722142N1**
Registration date: **2016-04-29, 1395/02/10**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-04-29, 1395/02/10

Registrant information

Name

Mehrdokht Mazdeh

Name of organization / entity

Hamadan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice-chancellor for research and technology Hamadan University of Medical Sciences

Expected recruitment start date

2015-09-01, 1394/06/10

Expected recruitment end date

2016-07-22, 1395/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of low frequency Transcranial Magnetic Stimulation(TMS) and sham condition TMS on behavioural language in post stroke broca aphasia in the farshchian hospital at 2015- 2016

Public title

The effects of low frequency Transcranial Magnetic Stimulation(TMS)on behavioural language in post stroke

broca aphasia

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patient with left hemisphere stroke; 45-80 yrs old; Right-handed; More than 1 month from stroke onset. Exclusion criteria: Metal implants in the body; Medical history of seizures in last year; previous speech therapy

Age

From **45 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **12**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Hamadan University of Medical Sciences, Ethics Committee

Street address

Floor2, Faculty of Medicine, Shahid Fahmideh St, Pajuhesh Sq

City

Hamedan

Postal code

Approval date

2015-04-18, 1394/01/29

Ethics committee reference number

UMSHA.REC.1394,41

Health conditions studied

1

Description of health condition studied

Broca aphasia

ICD-10 code

I69.3

ICD-10 code description

Sequelae of cerebral infarction

Primary outcomes

1

Description

Comprehension

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

2

Description

repetition

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

3

Description

naming

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

4

Description

Commands

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

5

Description

Verbal Fluency

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

6

Description

The content of speech

Timepoint

before and after test

Method of measurement

Persian Diagnostic Aphasia Battery

Secondary outcomes

empty

Intervention groups

1

Description

The intervention group will receive Low frequency (1 Hz) TMS to the right hemisphere for 30 minutes per day for 10 days. Both intervention and control group have speech therapy at the end of every session

Category

Rehabilitation

2

Description

The control and intervention group are in the same condition but the angle of magnetic field of control patients is in the position that not touching patient's head.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Farshchian hospital

Full name of responsible person

Dr Mehrdokht Mazdeh

Street address

Imam khomeini clinic, Mirzade Eeshghi

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Hamedan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamadan University of Medical Sciences, Vice-chancellor for research and technology, Hamedan

Full name of responsible person

Dr Mehrdokht Mazdeh

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Floor2, Faculty of Medicine, Shahid Fahmideh St, Pajuhesh Sq

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Hamadan University of Medical Sciences, Vice-chancellor for research and technology, Hamedan

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Hamedan University of Medical Sciences

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Position

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty