Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The Comparison between the effects of two different treatment protocols of Repetitive Transcranial Magnetic Stimulation (rTMS) on the improvements of verbal fluency in patients with Postcerebrovascular Accident (CVA) motor aphasia

Protocol summary

Summary

Objective: To determine and compare the effects of two different treatment protocols of repetitive Transcranial Magnetic Stimulation (rTMS) on the improvement of verbal fluency in patients with postcerebrovascular accident (CVA) motor aphasia. Study design: Random, double-blind (patient and interviewing physician), no placebo-controlled, multicenter, phase II trial. Materials and methods (A) Study population: 48 patients with a clinical diagnosis of stroke-induced motor aphasia presenting to Loghman Hospital and a specialized clinic. Inclusion criteria: Right handedness; the diagnosis of stroke; at least one year passed since the stroke; speaking Persian; and at least a primary education Exclusion criteria: Patients under speech therapy Sample size: 48 patients (B) Intervention(s) under study: Protocol I: The first group consists of 24 patients receiving 10 sessions of high-frequency rTMS (10 hertz) equivalent to 1200 pulse in ten minutes in the Broca's speech area of the left hemisphere and subsequently in the same session, low-frequency stimulation (1 hertz) equivalent to 600 pulses in ten minutes in Broca's symmetric area of the right hemisphere. Protocol II: The second group consists of 24 patients receiving 10 sessions of low-frequency rTMS (1 hertz) equivalent to 600 pulses in ten minutes in Broca's symmetric area in the right hemisphere. (C) The intervention time: October 2014 to March 2015 (D) The primary outcome(s): The number of mentioned objects and duration of mentioning objects by the patients will be recorded and compared before and after the rTMS.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014052417814N1**
Registration date: **2014-10-01, 1393/07/09**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-10-01, 1393/07/09

Registrant information

Name
Manouchehr Ilkhani

Name of organization / entity
Loghman Hakim Hospital/ Shahid Beheshti University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 21 8894 7269

Email address
ebrahimi.p@iums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Shahid Beheshti University of Medical Sciences

Expected recruitment start date

2013-03-21, 1392/01/01

Expected recruitment end date

2014-03-20, 1392/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
The Comparison between the effects of two different treatment protocols of Repetitive Transcranial Magnetic Stimulation (rTMS) on the improvements of verbal fluency in patients with Postcerebrovascular Accident (CVA) motor aphasia

Public title
The Comparison between the effects of Two treatment of Postcerebrovascular Accident (CVA) Motor Aphasia

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria: Right handedness; the diagnosis of stroke; at least one year passed since the stroke; speaking Persian; and at least a primary education; Exclusion criteria: Patients under speech therapy

Age
No age limit

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **48**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
The blindness of this test is such that the patients' tester after rTMS is not aware of facing which protocol and patient, i.e. the verbal tests and rTMS procedures are performed by two independent people.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committe of Shahid Beheshti University of Medical Sciences

Street address
School of Medicine, Koodakyar St., Shahryari Sq., Chamran Highway, Tehran

City
Tehran

Postal code

Approval date
2014-06-01, 1393/03/11

Ethics committee reference number
152

Health conditions studied

1

Description of health condition studied
Aphasia

ICD-10 code
R47.0

ICD-10 code description
Dysphasia and aphasia

Primary outcomes

1

Description
Response time

Timepoint
Before the study and after rTMS

Method of measurement
Quantity criteria

2

Description
The Number of Photos Names said by the patients

Timepoint
Before the study and after rTMS

Method of measurement
Quantity criteria

Secondary outcomes

empty

Intervention groups

1

Description
Alternative stimulation of two motor speech areas of the brain responsible for motor aphasia (the damaged left hemisphere) and its counterparts in the right hemisphere, with high-frequency (10 Hz) and low frequency (1 Hertz)

Category
Treatment - Other

2

Description
The method of stimulating the right hemisphere Broca symmetric with low frequency (1 Hertz)

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Loghman Hakim Hospital

Full name of responsible person
Dr. Manouchehr Ilkhani

Street address
Loghman Hakim Hospital, Makhsoos St., Lashgar crossroads

City
Tehran

2

Recruitment center

Name of recruitment center
Dr. Manouchehr Ilkhani Neurology Clinic

Full name of responsible person
Dr. Manouchehr Ilkhani

Street address
8th Floor, No. 637, Opposite of Iraq embassy, Vali-Asr Sq.

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice Chancellor of Research, Shahid Beheshti University of Medical Sciences

Full name of responsible person
Dr. Afshin Rezghi

Street address
6th Floor, Building No.1, Shahid Beheshti University of Medical Sciences, Parvaneh St., Yaman St., Chamran Highway, Tehran

City
Tehran

Grant name

Grant code / Reference number

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

Title of funding source
Vice Chancellor of Research, Shahid Beheshti University of Medical Sciences

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
Iran University of Medical Sciences

Full name of responsible person
Parvin Ebrahimi

Position
PhD, Heath services management

Other areas of specialty/work

Street address
No. 6, Rashid Yasemi st., Valiasr St., Health management and economics research center, Iran University of Medical sciences

City
Tehran

Postal code

Phone
+98 21 8867 1614

Fax
+98 21 8867 1615

Email
ebrahimi.p@iums.ac.ir; parvin_eb@yahoo.com

Web page address
hme.iums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Parvin Ebrahimi

Position
PhD, Health services manangement

Other areas of specialty/work

Street address
No. 6, Rashid Yasemi st., Valiasr St., Health management and economics research center, Iran University of Medical sciences

City
Tehran

Postal code

Phone
+98 21 8867 1614

Fax
+98 21 8867 1615

Email
ebrahimi.p@iums.ac.ir; parvin_eb@yahoo.com

Web page address
hme.iums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Parvin Ebrahimi

Position
PhD, Health services management
Other areas of specialty/work
Street address
No. 6, Rashid Yasemi st., Valiasr St., Health management and economics research center, Iran University of Medical sciences
City
Tehran
Postal code
Phone
+98 21 8867 1614
Fax
+98 21 8867 1615
Email
ebrahimi.p@iums.ac.ir; parvin_eb@yahoo.com
Web page address
hme.iums.ac.ir

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