

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

A clinical trial on the effect of mirror therapy in comparison with routine physiotherapy on motor abilities of patients with stroke patients

Protocol summary

Summary

Hemiparesis and hemiplegia are the most common and the worse complications of stroke. This study aimed to observe the effect of mirror therapy on motor abilities of patients with stroke in Mashhad, Iran. In this Randomized Control Trial, 40 patients with stroke (more than 1 month after the last stroke) will be assigned randomly in two groups of mirror therapy (n=20) and control (n=20). The inclusion/ exclusion criteria will be age of 30-65 years old, score of 1-3 from motor recovery index, lack of cognitive, verbal and visual disorder, recurrence of stroke or any problem responsible for stopping rehabilitation program. Intervention will be include 20 sessions of 30-minute mirror therapy, i.e. will perform flexion and extension of upper and lower extremities of affected and healthy ones in front of mirror and observe just the mirror image. In addition to mirror therapy in both groups, the routine program (physiotherapy and neuromuscular stimulation) will be performed. Upper and lower extremity motor abilities will be assessed before, during and after treatment using motor recovery scale, function Index Measure, Function Ambulation Classification, Barthel Index Scale and the range of motion will be measured by goniometry then two groups will compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201204289575N1**
Registration date: **2013-03-22, 1392/01/02**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-03-22, 1392/01/02

Registrant information

Name

Mahnaz Bahrami

Name of organization / entity

Mashhad University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Mashhad University of Medical Sciences

Expected recruitment start date

2012-11-21, 1391/09/01

Expected recruitment end date

2013-06-22, 1392/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A clinical trial on the effect of mirror therapy in comparison with routine physiotherapy on motor abilities of patients with stroke patients

Public title

The effect of mirror therapy on rehabilitation of stroke patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 1. At least 1 month after stroke. 2. Conducting routine rehabilitation program. 3. Score of

1-3 from motor recovery index. 4. No severe cognitive, verbal and visual disorder, history of dementia, Global aphasia or any visual disorder based on neurologist examination. 5. First experience of stroke. 6. No disease resulting in motor defects. Exclusion criteria: 1. Repetitive stroke. 2. No tendency for continuing rehabilitation program. 3. Any disease such as hemi anesthesia, trauma, severe infection, etc which cause to stop rehabilitation program. 4. Absent in 4 intermittent sessions or 2 subsequent sessions of course.

Age

From **30 years** old to **65 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Coin dropping will be use for random assignment in two groups of intervention and control. i.e. the clients with first session of physiotherapy in odd days will be assigned to test group and the others whose first session in even days will be assigned to control group.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Mashhad University of Medical Sciences

Street address

Mashhad Faculty of Nursing and Midwifery, Ebn-e Sina St. Doktora Crossroads.

City

Mashhad

Postal code

9137913199

Approval date

2012-10-27, 1391/08/06

Ethics committee reference number

91/563419

Health conditions studied

1

Description of health condition studied

stroke

ICD-10 code

167.9

ICD-10 code description

Cerebrovascular disease, unspecified

Primary outcomes

1

Description

motor ability of upper extremity

Timepoint

before, 5th, 10th, 15th and last sessions of intervention

Method of measurement

Goniometry, Barthel Index Scale, Motor Recovery Index.

2

Description

motor ability of lower extremity

Timepoint

before, 5th, 10th, 15th and last sessions of intervention

Method of measurement

Goniometry, Function Ambulation Classification, Barthel Index Scale, Function Index Measure, Motor Recovery Index.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention will be 20 sessions of 30-minute mirror therapy, i.e. flexion and extension of upper and lower extremities of affected and healthy ones in front of mirror and observe just the mirror image. Upper and lower extremity motor abilities will be assessed before, at 5th, 10th, 15th and last sessions of intervention using motor recovery scale, function Index Measure, Function Ambulation Classification, Barthel Index Scale and the range of motion will be measured by goniometry.

Category

Rehabilitation

2

Description

Control group will perform all physiotherapy exercises of upper and lower extremities without mirror.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Physiotherapy unit of Quaem Hospital

Full name of responsible person

Mohammad Javad Zarandi

Street address

Beginning of Ahmadabad Ave. Dr. shariati Sq.

City

Mashhad

2

Recruitment center

Name of recruitment center

Physiotherapy unit of Emam Reza Hospital

Full name of responsible person

Abbas Ramezani

Street address

Emam Reza Sq. Ebne Sina Ave.

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research, Mashhad University of
Medical Sciences

Full name of responsible person

Mohsen Tafaghodi

Street address

Faculty of Nursing and Midwifery, Ebn-e Sina St.
Doktora Crossing,

City

Mashhad

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for Research, Mashhad 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

Mashhad Faculty of Nursing and Midwifery

Full name of responsible person

Mahnaz Bahrami

Position

MS Nursing/Postgraduate student

Other areas of specialty/work

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Web page address

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