Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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)
Phone
+98 51 1842 1744
Email address
bahramim901@mums.ac.ir

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
Street address
Ebn-e Sina St. Doktora Crossing
City
Mashhad
Postal code
9137913199
Phone
+98 51 1859 1511
Fax
+98 51 1859 7313
Email
bahramim901@mum.ac.ir;
bahrami_mb_66@yahoo.com;
bahramim901@gmail.com
Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Mashhad Faculty of Nursing and Midwifery
Full name of responsible person
Seyed Reza Mazlom
Position
PhD
Other areas of specialty/work
Street address
Ebn-e Sina St. Doktora Crossing, Daneshgah Ave.
City
Mashhad
Postal code
9137913199
Phone
+98 51 1859 1511
Fax
+98 51 1859 7313
Email
mazlomr@mums.ac.ir
Web page address

Person responsible for updating data

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
Street address

Ebn-e Sina St. Doktora Crossing, Daneshgah Ave.

City

Mashhad

Postal code

9137913199

Phone

+98 51 1859 1511

Fax

+98 51 1859 7313

Email

bahramim901@mums.ac.ir;
bahrami_mb_66@yahoo.com;
bahramim901@gmail.com

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