

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The investigation of Mirror Therapy on hand function in adults with hemiparesis in Semnan

#### Protocol summary

##### Summary

Rehabilitation of the affected paretic arm after stroke is one of the main concerns of occupational therapists, especially in the chronic phase. The aims of this study is to investigate the effect of MIRROR THERAPY on hand function in adults with hemiparesis. In this randomized double blinded study a total of 30 chronic stroke patients (mean time post onset, 6 months) will be assigned to the mirror group (n = 15) or the control group (n = 15). Inclusion criteria is spend at least 6 months after stroke and the Ability to understand therapeutic instructions and exclusion criteria includes any structural problems that hinder the implementation of treatment program and cognitive, perceptual or visual deficits that interfere with treatment program. Treatment program will consist of 15 sessions which every session for the mirror group includes bi-manual training with mirror and conventional therapies, and for the control group includes bi-manual training without mirror and conventional therapies. Hand function will be assessed before and after treatments through FMA, Box & Block test and Jamar dynamometer.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201201128713N1**

Registration date: **2012-01-25, 1390/11/05**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2012-01-25, 1390/11/05

##### Registrant information

###### Name

Hossein Alibakhshi

##### Name of organization / entity

Semnan University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 23 1335 4180

##### Email address

alibakhshi@sem-ums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Neuromuscular Research Center, Semnan University of medical sciences

##### Expected recruitment start date

2012-01-21, 1390/11/01

##### Expected recruitment end date

2012-04-20, 1391/02/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The investigation of Mirror Therapy on hand function in adults with hemiparesis in Semnan

##### Public title

Effect of Mirror therapy in the treatment of adult patients with hemiplegia

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: Spend at least 6 months after stroke, the Ability to understand therapeutic instructions  
exclusion criteria: any structural problems that hinder the implementation of treatment program, cognitive or perceptual deficits that interfere with treatment program, visual difficulties

**Age**  
From **25 years** old to **60 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **30**

**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**  
Semnan University of medical sciences

**Street address**  
Semnan- Semnan University of medical sciences

**City**  
Semnan

**Postal code**

**Approval date**  
2012-01-10, 1390/10/20

**Ethics committee reference number**  
90/134961

## Health conditions studied

### 1

**Description of health condition studied**  
stroke

**ICD-10 code**  
I67.9

**ICD-10 code description**  
Cerebrovascular disease, unspecified

## Primary outcomes

### 1

**Description**  
dexterity

**Timepoint**

before/after treatment

**Method of measurement**  
Box & Block Test

### 2

**Description**  
hand function

**Timepoint**  
befor / after treatment

**Method of measurement**  
Fugl Meyer Assessment r

### 3

**Description**  
strengthening grip

**Timepoint**  
before/after treatment

**Method of measurement**  
Jammr Dynamometer

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**  
Intervention: mirror therapy + conventional occupational therapy

**Category**  
Rehabilitation

### 2

**Description**  
Control : bimanual training + conventional occupational therapy

**Category**  
Rehabilitation

## Recruitment centers

### 1

**Recruitment center**

**Name of recruitment center**  
Neuro-muscular Research Center

**Full name of responsible person**

**Street address**

**City**  
Semnan

## Sponsors / Funding sources

### 1

**Sponsor**  
**Name of organization / entity**

research and technology deputy of Semnan university  
of medical sciences

**Full name of responsible person**

Dr. Raheb Ghorbani

**Street address**

Semnan university of medical sciences

**City**

Semnan

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

research and technology deputy of Semnan 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**

Semnan University of medical sciences

**Full name of responsible person**

Hossein Alibakhshi

**Position**

Msc. Occupational therapy/ lecturer

**Other areas of specialty/work**

**Street address**

Neuromuscular research center- Ghods blvd.

**City**

Semnan

**Postal code**

**Phone**

+98 23 1332 8502

**Fax**

**Email**

alibakhshi@sem-ums.ac.irhalibakhshi.m@gmail.com

**Web page address**

## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**

Semnan University of medical sciences

**Full name of responsible person**

Hossein Alibakhshi

**Position**

Msc. Occupational therapy

**Other areas of specialty/work**

**Street address**

Neuromuscular research center-Ghods blvd.

**City**

Semnan

**Postal code**

**Phone**

+98 23 1332 8502

**Fax**

**Email**

alibakhshi@sem-ums.ac.ir halibakhshi.m@gmail .  
com

**Web page address**

## Person responsible for updating data

**Contact**

**Name of organization / entity**

Semnan University of medical sciences

**Full name of responsible person**

Hossein Alibakhshi

**Position**

Msc. Occupational therapy

**Other areas of specialty/work**

**Street address**

Neuromuscular research center- Ghods blvd.

**City**

Semnan

**Postal code**

**Phone**

+98 23 1332 8502

**Fax**

**Email**

alibakhshi@sem-ums.ac.irhalibakhshi.m@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*