

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of sensory- motor training on hand and upper extremity sensory and motor function in patients with Parkinson's disease

Protocol summary

Summary

The aim of this study is to investigate the effect of sensory- motor training on hand and upper extremity sensory and motor function in patients with Parkinson's disease. In this clinical trial study, 40 patients with idiopathic Parkinson's disease are randomly assigned to two groups: group receiving sensory-motor training and control group. The main inclusion criteria include having Parkinson's disease according to neurologist diagnosis, the disease progression level of 1 to 3 according to Hoehn and Yahr Scale, an acceptable level of cognitive function, i.e. score of more than 21 on the Mini Mental Status Examination (MMSE) and being eligible for sensory-motor retraining (having the light touch sensation at the level of acceptable mono-filaments, i.e. 4.31 and above in the fingertips and no severe problems of proprioception and discrimination sensation). In case of no cooperation during training and exercises and not returning for testing after the interventions, subjects are excluded. Sensory- motor training group receives 10 sessions of sensory-motor training (5 sessions per week, 3 to 5 hours per session). Control group does not receive any sensory-motor training. Both groups are evaluated in terms of sensory and motor functions of hand and upper extremity before and after 2 weeks.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015020816830N2**

Registration date: **2015-05-10, 1394/02/20**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-05-10, 1394/02/20

Registrant information

Name

Ghorban Taghizadeh

Name of organization / entity

School of Rehabilitation Sciences, Iran University of Medical

Country

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences, School of Rehabilitation

Expected recruitment start date

2015-04-19, 1394/01/30

Expected recruitment end date

2016-01-20, 1394/10/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of sensory- motor training on hand and upper extremity sensory and motor function in patients with Parkinson's disease

Public title

Effect of sensory motor training on the upper limb function of patients with Parkinson's disease

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Having Parkinson's disease according to

neurologist diagnosis; Having the disease progression level of 1 to 3 according to Hoehn and Yahr Scale; Having an acceptable level of cognitive function, i.e. score of more than 24 on the Mini Mental Status Examination (MMSE); To be eligible for sensory-motor retraining (Having the light touch sensation at the level of acceptable mono-filaments, i.e. 4.31 and above in the fingertips and no severe problems of proprioception and discrimination sensation); Not having orthopedic problems (neurologic damages, fracture, tendon injuries), rheumatologic diseases (rheumatoid arthritis, osteoarthritis), neurologic diseases (stroke, multiple sclerosis) and other diseases such as diabetes, hepatitis and burns; Having the ability to read and write. Exclusion Criteria: Lack of patient cooperation during the test; Not return for the testing after the intervention; Entering to the nonpharmacologic on-off phase of the disease during the study according to neurologist diagnosis; Change in the pharmacologic regimen of the patient during the study; Inability to complete the activities of treatment interventions and progress to the harder levels of the intervention up to 70% of the protocol

Age

From **55 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Single blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Iran University of Medical Sciences

Street address

Hemmat Highway, Tehran

City

Tehran

Postal code**Approval date**

2014-12-24, 1393/10/03

Ethics committee reference number

93-03-125-25100-106950

Health conditions studied**1****Description of health condition studied**

Parkinson's disease

ICD-10 code

G20

ICD-10 code description

Extrapyramidal and movement disorders

Primary outcomes**1****Description**

Motor function of hand and upper extremity

Timepoint

before and after intervention

Method of measurement

Box and Block, and Purdue Pegboard tests

2**Description**

Extroceptive and proprioceptive sense of hand and upper extremity

Timepoint

before and after intervention

Method of measurement

Weinsten Enhanced Sensory test, Proprioception and Kinesthesia test, Wrist Position test

Secondary outcomes**1****Description**

Discriminative sense of hand and upper extremity

Timepoint

before and after intervention

Method of measurement

Two-point discrimination test, Haptic Recognition Object test, Hand Active Sensation test, Strenosis test

Intervention groups**1****Description**

Intervention group: receives 10 sessions of sensory-motor training (5 sessions per week, 3 to 5 hours per session).

Category

Rehabilitation

2

Description

Control group: does not receive this training.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Occupational therapy clinic, School of Rehabilitation,
Iran University of Medical Sciences

Full name of responsible person

Street address

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Iran University of
Medical Sciences,

Full name of responsible person

Dr. Seyed Ali Javad Moosavi

Street address

Iran University of Medical Sciences

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 for research of Iran 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

Ghorban Taghizadeh

Position

Master of Science

Other areas of specialty/work

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Person responsible for updating data

Contact

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