

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

The comparison of the effects of dual and single task-oriented balance exercises on postural control of patients with Parkinson's disease

Protocol summary

Summary

The aim of this study is to compare the effect of single and dual task-oriented balance exercises on postural control of patients with Parkinson's disease. In this clinical trial study, 34 patients with idiopathic Parkinson's disease are randomly assigned to two groups of single and dual task-oriented balance exercises. 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, the ability to walk independently and without assistive device at least 10 meters in length and an acceptable level of cognitive function, i.e. score of more than 21 on the Mini Mental Status Examination (MMSE). In case of no cooperation during the test and exercises and not returning for testing after the interventions, subjects are excluded. Both groups receive 12 sessions of task-oriented balance exercises (3 sessions per week, 45 minutes per session). The group of single task-oriented balance exercises receives only a single balance exercises while the group of dual task-oriented balance exercises receives balance exercise in combination with cognitive exercises. Both groups are evaluated with clinical and laboratory tests in terms of functional balance and postural control before and after receiving exercises.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015022216830N3**

Registration date: **2015-05-16, 1394/02/26**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-05-16, 1394/02/26

Registrant information

Name

Ghorban Taghizadeh

Name of organization / entity

School of Rehabilitation Sciences, Iran University of Medical

Country

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Phone

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2015-04-04, 1394/01/15

Expected recruitment end date

2016-04-03, 1395/01/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The comparison of the effects of dual and single task-oriented balance exercises on postural control of patients with Parkinson's disease

Public title

Effect of balance exercises on balance 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 21 on the Mini Mental Status Examination (MMSE); Having the ability to walk independently and without assistive device at least 10 meters in length; Having at least a fifth grade education; Having no other neurological diseases such as stroke according to the patient, or the patient's family or physician report; Not having any orthopedic problem (such as low back pain, arthritis, Hallux valgus, flat foot) according to the patient, or the patient's family or physician report; Not having diabetes or addiction according to the patient, or the patient's family or physician report; No history of falling during the past month according to the patient, or the patient's family report. Exclusion Criteria: Lack of patient cooperation during the test or exercises; Not return for doing tests 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.

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: **34**

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

City

Tehran

Postal code**Approval date**

2014-04-12, 1393/01/23

Ethics committee reference number

92-03-32-24201-100335

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

Parkinson disease

ICD-10 code

G20

ICD-10 code description

Extrapyramidal and movement disorders

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

Postural control

Timepoint

Before and after intervention

Method of measurement

forceplate

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

Functional balance and mobility

Timepoint

before and after interventions

Method of measurement

Functional reach and Timed Up and Go tests

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

Intervention group: 12 sessions of task-oriented balance exercises in combination with cognitive exercises (3 sessions per week, 45 minutes per session)

Category

Rehabilitation

2**Description**

Control group: 12 sessions of single task-oriented balance exercises (3 sessions per week, 45 minutes per session)

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, Dr. Seyed Ali Javad Moosavi

Full name of responsible person

Dr Mossavi

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, Dr. Seyed Ali Javad Moosavi

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