# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

08 Nov 2026

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

## Protocol summary

**Summary**

The aim of this study is to compare the effect of single and dual task-oriented balance exercies 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 exercies. 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 returing for testing after the interventions, subjects are excluded. Both groups receive 12 sessions of task-oriented balance exercies (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
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School of Rehabilitation Sciences, Iran University of Medical
**Country**
Iran (Islamic Republic of)
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**Email address**
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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 diseasse

**Public title**

Effect of balance exercises on balance of patients with Parkinson's diseasse

**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 sessio)

**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**
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Master of Science
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## Person responsible for scientific inquiries

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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*