Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 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

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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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Iran University of Medical Sciences
Full name of responsible person
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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