

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Sep 2026

The effect of personalized comprehensive rehabilitation training on static and dynamic balance in women with multiple sclerosis with different disability levels

Protocol summary

Summary

The purpose of this study is to investigate the effect of personalized comprehensive rehabilitation training on static and dynamic balance in women with multiple sclerosis with different levels of disability. Design and methods of the study: This study is an interventional, single blind clinical trial. In this experimental study, 92 patients admitted to the multiple sclerosis society of Shahrekord city in 2015 were selected and on the basis of disability were categorized into 3 groups mild, moderate and severe. Then each group was randomly divided into experimental and control group. Inclusion criteria: people with Multiple Sclerosis; without experience of regular physical activity in 6 months before beginning of the study; more than two months have passed from the last severity of their illness. Exclusion criteria: patients non-cooperation; death. The personalized comprehensive rehabilitation training program was done 12 weeks, 3 times per week. Then primary outcome including static balance by stand on one leg and dynamic balance by timed up and go test were evaluated.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016093019995N7**
Registration date: **2016-11-18, 1395/08/28**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-11-18, 1395/08/28

Registrant information

Name

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Name of organization / entity

Shahrekord University

Country

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2016-03-15, 1394/12/25

Expected recruitment end date

2016-06-19, 1395/03/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of personalized comprehensive rehabilitation training on static and dynamic balance in women with multiple sclerosis with different disability levels

Public title

The effect of personalized comprehensive rehabilitation training

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: people with Multiple Sclerosis; without experience of regular physical activity in 6 months

before beginning of the study; more than two months have passed from the last severity of their illness.
Exclusion criteria: patients non-cooperation; death

Age
From **20 years** old to **40 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **97**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
In order to evaluate disability level of patients was used of Expanded Disability Status Scale (EDSS). This scale consists of 10 points which patients according to disease severity to score zero to 10.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Islamic Azad University of khorasgan

Street address

Islamic Azad University of khorasgan, arghavanieh boulevard, Khorasgan , Isfahan

City

Isfahan

Postal code

Approval date

2016-02-10, 1394/11/21

Ethics committee reference number

23821402932034

Health conditions studied

1

Description of health condition studied

Multiple sclerosis

ICD-10 code

G35

ICD-10 code description

Demyelinating diseases of the central nervous system

Primary outcomes

1

Description

Static balance index

Timepoint

Before and after 12 weeks of intervention

Method of measurement

Stand on one leg test

2

Description

Dynamic balance index

Timepoint

Before and after 12 weeks of intervention

Method of measurement

Timed up and go test

Secondary outcomes

empty

Intervention groups

1

Description

The experimental group: Integrated rehabilitation protocol based on the level of disability that includes 15 minutes of selected training of Pilates, 20 minutes of aerobic training include: treadmill, stationary bike or wheelbarrow, 15 minutes strength training program of upper body and lower body, 10 minutes PNF stretching exercises.

Category

Rehabilitation

2

Description

The control group: do stretching exercises

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Multiple sclerosis society of Shahrekord city

Full name of responsible person

Street address

City

Shahrekord

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Islamic Azad University of khorasgan

Full name of responsible person

Dr Nader Rahnama

Street address

Islamic Azad University of khorasgan, arghavanieh boulevard, Khorasgan ,Isfahan

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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, Islamic Azad University of khorasgan

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**

Islamic Azad University of khorasgan

Full name of responsible person

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Position

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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