

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of 12-week combined exercise training on motor and muscular function, degree of disability, fatigue and quality of life in Multiple Sclerosis patients

Protocol summary

Summary

The purpose of this study was to investigate the effect of concurrent training on muscular performance, fatigue and quality of life in patients with multiple sclerosis (MS). Twenty four 20-50-year-old women with EDSS score of 2-5 were randomly divided into control (n=12) and experimental (n=12) groups, using random number function in excel. All participants had regular menstrual cycles and had never participated in any regular exercise training before the beginning of the study. The training protocol included one session of resistance exercise and two sessions of aerobic exercise per week for 12 weeks. The main dependent variables of this study were muscular performance, fatigue and the quality of life. In this study was not done blinding

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Email address

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2015-03-20, 1393/12/29

Expected recruitment end date

2016-03-19, 1394/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017042133146N2**

Registration date: **2017-08-21, 1396/05/30**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-08-21, 1396/05/30

Registrant information

Name

Vahid Tadibi

Name of organization / entity

Razi University

Country

Iran (Islamic Republic of)

Phone

Scientific title

The effect of 12-week combined exercise training on motor and muscular function, degree of disability, fatigue and quality of life in Multiple Sclerosis patients

Public title

Strength and resistance training in Multiple Sclerosis patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Inclusion criteria: EDSS score of 2 to 5 (approved by neurologist through MS diagnostic tests including MRI or CT scan and functional tests for balance, strength, walking ability, and visual and tactile senses); women aged between 20 and 50 years; regular menstrual cycle, donot presence of any other acute or chronic diseases; not participating in any regular exercise training. Exclusion criteria: Did not have one of the condition of entry

Age

From **20 years** old to **50 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **22**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Randomization was performed in the form random categorized and in each class, a simple randomization method was used.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Sabzevar University of Medical Sciences

Street address

Sabzevar, Tehran road, Sabzevar University of Medical Sciences

City

Sabzevar

Postal code

Approval date

2016-02-01, 1394/11/12

Ethics committee reference number

IR.MEDSAB.REC.1394.137

Health conditions studied

1

Description of health condition studied

Multiple sclerosis

ICD-10 code

G35

ICD-10 code description

Multiple sclerosis

Primary outcomes

1

Description

Motor and Muscular Function

Timepoint

Before and after the intervention

Method of measurement

Use special test of speed, endurance and power for patients

2

Description

Fatigue

Timepoint

Before and after the intervention

Method of measurement

Fatigue Questionnaire

3

Description

Quality of life

Timepoint

Before and after the intervention

Method of measurement

Quality of life Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: combined exercise training(aerobic, resistance), included three sessions per week, lasting for 12 weeks(two sessions of aerobic training and one session of resistance training)

Category

Rehabilitation

2

Description

Control group: had received no exercises and did their normal activities

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Special Disease Center, Hospital Vasei

Full name of responsible person

Maryam Bahram por

Street address

Special Disease Center, Vasei Hospital, Bagh Melli square, Sabzevar

City

Sabzevar

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Razi University

Full name of responsible person

Mohammad Joshaghani, Vice Chancellor for research of ...Razi University

Street address

Central Building of Razi University, Bagh Abrisham, Taq Bostan, Kermanshah

City

Kermanshah

Grant name

-

Grant code / Reference number

-

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Razi University

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

Razi University

Full name of responsible person

Mitra Khademosharie

Position

Exercise Physiology, phd

Other areas of specialty/work

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Person responsible for scientific inquiries

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Position

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Person responsible for updating data

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phd student

Other areas of specialty/work

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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