

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

18 Jun 2026

### Efficacy of dual task versus single task training on balance and functional mobility in patient with multiple sclerosis

#### Protocol summary

##### Summary

In the research literature the effect of dual tasks were explored on postural control and balance in subjects such as old aged people and cases with stroke. Although persons with Multiple Sclerosis (MS) commonly have walking and balance control impairments, there were not found any evidences that study the efficacy of dual task on movement performance of MS patients. So the aim of the study is to examine the effect of dual task intervention (movement\_cognitive) on dynamic and static balance, functional mobility and walking speed in women with MS. 36 participants (expanded disability status scale: 3-7) are divided randomly in to three groups (control, single task and dual task). A pre test and post test are taken in order to measure balance, functional mobility and walking speed via, respectively, BIODEX, Up and Go walking test and 25 feet walking test. It should be noted that these tests are valid and reliable.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201408188436N2**

Registration date: **2014-09-07, 1393/06/16**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2014-09-07, 1393/06/16

##### Registrant information

###### Name

Hossein Ali Ebrahimi

###### Name of organization / entity

Neurology Research Center

###### Country

Iran (Islamic Republic of)

###### Phone

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###### Email address

hebrahimi@kmu.ac.ir

###### Recruitment status

**Recruitment complete**

###### Funding source

Neurology Research Center - Kerman University of medical sciences

###### Expected recruitment start date

2014-08-18, 1393/05/27

###### Expected recruitment end date

2015-08-18, 1394/05/27

###### Actual recruitment start date

empty

###### Actual recruitment end date

empty

###### Trial completion date

empty

###### Scientific title

Efficacy of dual task versus single task training on balance and functional mobility in patient with multiple sclerosis

###### Public title

Efficacy of dual task on multiple sclerosis

###### Purpose

Other

###### Inclusion/Exclusion criteria

Inclusion criteria: the MS patients confirmed by MS committee of Kerman University of Medical Sciences; the EDSS between 3-7; cooperation of MS patients. Exclusion criteria: combined with other disease; the demographic and position criteria of three groups should be same.

###### Age

From **18 years** old to **50 years** old

###### Gender

Female

## Phase

N/A

## Groups that have been masked

No information

## Sample size

Target sample size: **54**

## Randomization (investigator's opinion)

Randomized

## Randomization description

## Blinding (investigator's opinion)

Double blinded

## Blinding description

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethic committee of Deputy of Research

##### Street address

Jahad Blvd - Ebne Sina Avenue - Kerman - Iran

##### City

Kerman

##### Postal code

#### Approval date

2010-08-20, 1389/05/29

#### Ethics committee reference number

93/42/15

## 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

dynamic balance

#### Timepoint

rate of deviation(0-10)

#### Method of measurement

by Biodex instrument

### 2

#### Description

functional mobility 25 foot walking

#### Timepoint

timed 25 foot walking (seconds)

#### Method of measurement

time measurement

### 3

#### Description

up and go duratin

#### Timepoint

duration (seconds)

#### Method of measurement

time measurement

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

In the present study intervention protocol involve a variety of balance tasks which is done 45 min three days a week during one month. The patients are 15-18 cases

#### Category

Rehabilitation

### 2

#### Description

In the present study intervention protocol involve a variety of balance tasks which is done 45 min three days a week during one month. These tasks are done along with a cognitive task as dual task condition. The patients are 15-18 cases.

#### Category

Rehabilitation

### 3

#### Description

in this present stdy the contrl group is (18-15) patients (MS) that age and EDSS are same with intervention group, but balanced task has not done, only functional mobility and dynamic balance tests evaluated at first and after one month.

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Neurology Research Center- Kerman University of medical sciences

**Full name of responsible person**

Hossein Ali Ebrahimi M.D

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**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**Faculty of Physical Education and Sports Sciences,  
Shahid Bahonar University**Full name of responsible person**

Mahshid Zare Zade

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**Web page address****Sponsors / Funding sources****1****Sponsor****Name of organization / entity**Neurology Research Center - Kerman University of  
medical sciences**Full name of responsible person**

Gholam Reza Sepehri M.D

**Street address**Somayeh Cross way - Deputy of Research -Kerman  
University of medical sciences**City**

Kerman

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**Neurology Research Center - Kerman University of  
medical sciences**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**Neurology research center, Kerman University of  
medical sciences**Full name of responsible person**

Hossein Ali Ebrahimi

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**Full name of responsible person**

Farnaz Saeed

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**Postal code****Phone****Fax****Email****Web page address****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*