# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 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
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**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/کا

## 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 measurment

### 3

**Description**
up and go duratin
**Timepoint**
duration (seconds)
**Method of measurement**
time measurment

## 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 medcal sciences

**Full name of responsible person**
Hossein Ali Ebrahimi M.D
**Street address**
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Kerman

## 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

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## Person responsible for scientific inquiries

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## Person responsible for updating data

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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*