Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

To Evaluate the Effectiveness of Whole Body Vibration on Strength and Endurance of Core muscles in Ambulant Individuals with Multiple Sclerosis

Protocol summary

Summary

The aim of this study is to evaluate the effectiveness of Whole Body Vibration on Strength and Endurance of Core muscles in Ambulant Patients with Multiple Sclerosis (MS). Patients with MS who experiences the last two months of relapse and does not have attack and aged between 20 and 50 years are enrolled. Patients with corticosteroids injection at least 28 days before the intervention are excluded.The sample size for this pilot study is 25 patients in each group. Patients are randomly divided into two groups. Intervention group are treated with Whole Body Vibration for 6 weeks, 3 times a week. The control group will not receive any treatment. Strength is measured using a dynamometer and endurance is evaluated with endurance tests before and after the intervention. A month after the intervention quality of life questionnaire will be assessed again.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017041328447N6**
Registration date: **2017-06-19, 1396/03/29**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2017-06-19, 1396/03/29

Registrant information

Name

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Name of organization / entity

Shiraz University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

School of Rehabilitation Sciences, Shiraz University of Medical Sciences

Expected recruitment start date

2017-06-05, 1396/03/15

Expected recruitment end date

2017-09-21, 1396/06/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

To Evaluate the Effectiveness of Whole Body Vibration on Strength and Endurance of Core muscles in Ambulant Individuals with Multiple Sclerosis

Public title

To Evaluate the Effectiveness of Whole Body Vibration on Strength and Endurance of Core muscles in Ambulant Individuals with Multiple Sclerosis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: People with mild to moderate disability (EDSS=1-5.5)the ability to ambulate 10 meters with or without assisstive device; Confirmed diagnosis of MS by physician; Lack of mental problems , Fracture and have an implant in the body; No history of attacks and

relapses during the past 2 months; Having no experience of vibration during the last 3 months; Age range of 20-50 years Exclusion criteria: Implant in the body; Epilepsy; Tumors; Corticosteroid injection 28 days before the intervention; Osteoporosis; Discopathy; Diabetes; Severe wounds and scarring; Attacks during the application of WBV

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

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **50**

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
Shiraz University of Medical Science

Street address
Zand Ave, Building of Shiraz University of Medical Science

City
Shiraz

Postal code
713451733

Approval date
2017-01-22, 1395/11/03

Ethics committee reference number
IR.SUMS.REC.1395.167

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
Isometric Strength of Flexor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

2

Description
Isometric Strength of Extensor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

3

Description
IsometricSstrength of Lat Flexor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

4

Description
Endurance of Flexor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

5

Description
Endurance of Extensor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

6

Description
Endurance of Lat Flexor Muscles of Trunk

Timepoint
Before and After Intervention

Method of measurement
Measuring Isometric Strength with Dynamometer a specified period

Secondary outcomes

1

Description
Quality of Life
Timepoint
One Month After Intervention
Method of measurement
Questionnaire

Intervention groups

1

Description
Intervention group: Patients are treated for 6 weeks, 3 sessions per week, 5 sets per session by Whole Body Vibration apparatus.The vibration exercise to rest ratio is 30:60 for the first two weeks(Vibration: 30 seconds and rest: 60 seconds), 45:60 for the third week and fourth weeks and 60:60 for the fifth and sixth weeks.
Category
Rehabilitation

2

Description
Control group: This group does not receive any treatment and continue their normal life
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
MS Society of Shiraz and Neurology Clinics affiliated to Shiraz University of Medical Science
Full name of responsible person
Street address
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shiraz University of Medical Science
Full name of responsible person
Dr.Gholamreza Hatam
Street address
Zand Av, Shiraz University of Medical Science
City
Shiraz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shiraz University of Medical Science
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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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