Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The comparison maitland mobilization and mobilization with movement effects on pain, rang of motion and static balance in ankle sprain with mechanical instability

Protocol summary

Study aim

The comparison of maitland mobilization and mobilization with movement effects on pain, range of motion and static balance in ankle sprain with mechanical instability

Design

Fifty patients participating in this study are placed randomly in two receiving intervention groups. Patients are treated six sessions, 3 times a week.

Settings and conduct

Patients will be treated at the physiotherapy clinic of Semnan university of medical sciences, The treatment protocol includes the application of grade 3 maitland mobilization in the antroposterior direction of talus bone in a group of patients and application of mobilization with movement based on mulligan technique in the other group

Participants/Inclusion and exclusion criteria

Inclusion criteria: age range between 20 and 40 years old; detection of mechanical degree of instability by orthopedic specialist; motionless between two weeks and four weeks before intervention; second grade injury of the lateral ligament of ankle; hasn't fracture, surgery or any lower limb damage excepe ankle sprain in last 6 months; hasn't systematic diseases like diabetes or rheumatism diseases; hasn’t spinal cord problems or each problems that reduce the person balance. Exclusion criteria: exacerbation of pain or any other problem for the person during the test intra-articular steroid injection in the last 6 months; neurological, vascular or visual disturbances that disturb the person balance; having a rehabilitation program before entering the study; being professional sportsman.

Intervention groups

In a group of patients, grade 3 of maitland mobilization is applied in the antroposterior direction of the talus bone. In the other group, mobilization with movement based on the Mulligan technique is applied.

Main outcome variables

Assessment of pain based on visual analogue acale and measurement the dorsiflexion range of motion based on WBLT method will be done before and after intervention.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190108042292N2**
Registration date: **2019-02-17, 1397/11/28**
Registration timing: **prospective**

Last update: **2019-02-17, 1397/11/28**
Update count: **0**

Registration date

2019-02-17, 1397/11/28

Registrant information

Name

Cyrus Taghizadeh Delkhosh

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 23 3365 4180

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-04-21, 1398/02/01

Expected recruitment end date

2019-05-22, 1398/03/01

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
The comparison maitland mobilization and mobilization with movement effects on pain, rang of motion and static balance in ankle sprain with mechanical instability

Public title
The effect of mobilization on ankle sprain
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age range between 20 and 40 years Detection of mechanical degree of instability by orthopedic specialist Motionless between two weeks and four weeks before intervention Second grade injury of the lateral ligament of ankle Hasn't fracture, surgery or any lower limb damage except ankle sprain in last 6 months Hasn't systematic diseases like diabetes or rheumatism diseases Hasn’t spinal cord problems or each problems that reduce the person balance
Exclusion criteria:
Exacerbation of pain or any other problem for the person during the test Intra-articular steroid injection in the last 6 months Neurological, vascular or visual disturbances that disturb the person balance Having a rehabilitation program before entering the study Being professional sportsman
Age
From **20 years** old to **40 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
In this study, patients will be divided into two groups with equal number by simple randomized sampling method. In such away that by assigining a coin, it is determined which group of each patient will be placed in this way, if one of the groups is completed earlier, the rest of the persons will be in the other group
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Semnan University of Medical Sciences
Street address
Semnan University of Medical Sciences, Basij Blvd., Semnan
City
Semnan
Province
Semnan
Postal code
3519899951
Approval date
2018-12-18, 1397/09/27
Ethics committee reference number
IR.SEMUMS.REC.1397.205

Health conditions studied

1

Description of health condition studied
Ankle sprain
ICD-10 code
S90.9
ICD-10 code description
Unspecified superficial injury of ankle, foot and toe

Primary outcomes

1

Description
Pain Intensity in VAS
Timepoint
Before and After Intervention
Method of measurement
Visual Analogue Scale

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: six sessions of treatment, 3 times a week include the application of grade 3 maitland mobilization in the antroposterior direction of Talus bone 3 sets 30 seconds and 30 seconds rest between sets
Category

Rehabilitation

2

Description
Intervention group: six sessions of treatment, 3 times a week include the application of mobilization with movement based on Mulligan technique 3 sets 30 seconds and 30 seconds rest between sets
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Ebn Sina Rehabilitation Clinic
Full name of responsible person
Adeleh Noruzi
Street address
Ebn Sina Clinic, 17 Shahrivar Blvd, Semnan
City
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3519899951
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Semnan University of Medical Sciences
Full name of responsible person
Dr Parviz Kokhaie
Street address
Semnan University of Medical Sciences, Basij Blvd, Semnan
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Postal code
3514799442
Phone
+98 23 3345 1336
Email
p_kokha@yahoo.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Semnan University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Semnan University of Medical Sciences
Full name of responsible person
Dr Syrus Taghizadeh
Position
Assistant professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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Full name of responsible person

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Position

Assistant Professor

Latest degree

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Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No additional information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available