Clinical Trial Protocol
Iranian Registry of Clinical Trials

28 Oct 2026

Effects of ankle joint taping on force plate system kinetic changes and lower limb functional activity in athletes with chronic ankle sprain in perturbation condition

Protocol summary

Study aim

The aim of this study is to evaluate effects of ankle joint taping on force plate system kinetic changes and lower limb functional activity in athletes with chronic ankle sprain in perturbation condition

Design

30 athletes with chronic ankle sprain participate in this study and single blinded randomly assigned to two intervention and control groups with block stratified randomization using windows software.

Settings and conduct

The volunteer athletes with chronic ankle sprain referred to Neuromuscular Rehabilitation Research Center of Semnan University of Medical Sciences, participate in the study.

Participants/Inclusion and exclusion criteria

Inclusion criteria for this study are full consent for participating; 20-35 years old; have regular training sessions 3 days a week and from 6 months before the study at least; have at least one giving way after the first lateral ankle sprain; lower than 4 visual analogue scale score. Exclusion criteria are musculoskeletal deficit like bow leg, knock knee, flat foot or pes cavus; direct trauma to ankle or surgery; both ankles lateral sprain; pregnancy; body mass index equal or more than 30 kilograms per square meter; pathology in ankle such as cellulitis, cutting, ekimoz or osteomyelitis; rheumatic disease like rheumatoid arthritis.

Intervention groups

In the intervention group taping will be applied on ankle periarticular bones for mechanical correction with 20%, 70% and 100% tensions in 3 sessions during 9 days. In the control group taping without tension will be applied on ankle periarticular bones exactly like the intervention group in 3 sessions during 9 days.

Main outcome variables

Vertical jump measure, power, peak velocity, time to reach maximum force and ground reaction force will be assessed in both groups before and after 9 days intervention.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150602022539N10**
Registration date: **2020-08-22, 1399/06/01**
Registration timing: **prospective**

Last update: **2020-08-22, 1399/06/01**
Update count: **0**

Registration date

2020-08-22, 1399/06/01

Registrant information

Name

Ziaeddin Safavi Farokhi

Name of organization / entity

Semnan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 23 3365 4180

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zsafavi@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-09-22, 1399/07/01

Expected recruitment end date

2020-12-21, 1399/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of ankle joint taping on force plate system kinetic changes and lower limb functional activity in athletes with chronic ankle sprain in perturbation condition

Public title

Effects of ankle joint taping on force plate system kinetic changes and lower limb functional activity in athletes with chronic ankle sprain in perturbation condition

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Participation with willingness Age between 20 and 35 Have training sessions constantly 3 days a week and from 6 month past at least Have at least one giving way after the first time lateral ankle sprain less than 4 visual analogue scale score

Exclusion criteria:

Musculoskeletal deficit like bow leg, knock knee, flat foot or pes cavus Direct trauma to ankle or surgery Both ankles lateral sprain Pregnancy Body mass index equal or more than 30 kg/m2 Pathology in ankle such as cellulitis, cutting, ekimoz or osteomyelitis Rheumatic disease like rheumatoid arthritis

Age

From **20 years** old to **35 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant
- Data analyser

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Blocking randomization

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study the participants and statistical analyzer will be blind.

Placebo

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, Kilometer 5 Damghan road, Semnan

City

Semnan

Province

Semnan

Postal code

3519899951

Approval date

2020-08-09, 1399/05/19

Ethics committee reference number

IR.SEMUMS.REC.1399.153

Health conditions studied

1

Description of health condition studied

Chronic ankle sprain

ICD-10 code

S93

ICD-10 code description

Dislocation and sprain of joints and ligaments at ankle, foot and toe level

Primary outcomes

1

Description

Vertical jump measure

Timepoint

Before and after 9 days intervention

Method of measurement

Motion analysis system

2

Description

Power

Timepoint

Before and after 9 days intervention

Method of measurement

Force plate system

3

Description

Peak velocity

Timepoint

Before and after 9 days intervention

Method of measurement

Force plate system

4

Description
Time to reach maximum force
Timepoint
Before and after 9 days intervention
Method of measurement
Force plate system

5

Description
Ground reaction force
Timepoint
Before and after 9 days intervention
Method of measurement
Force plate system

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: 100, 70 and 20 percent tension taping on ankle bones in 3 sessions during 9 days
Category
Rehabilitation

2

Description
Control group: taping without tension on ankle bones in 3 sessions during 9 days
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Neuromuscular rehabilitation research center of Semnan university of medical sciences
Full name of responsible person
Ziaeddin Safavi Farokhi
Street address
In front of Helal Ahmar, Mashahir square, Semnan
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Semnan University of Medical Sciences
Full name of responsible person
Parviz Kuhkhaii
Street address
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Vice chancellor for research, 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
Ziaeddin Safavi Farokhi
Position
Ph.D, Assistant Professor
Latest degree
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Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan
Not applicable

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Not applicable

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available