Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Effects of prophylactic ankle supports on balance, perceived stability and ground reaction force during lateral landing before and after fatigue in healthy female college sport student

Protocol summary

Study aim
Aim to evaluate the effect of prophylactic ankle support on time to stabilization, perceived stability and peak vertical ground reaction force in subjects without a history of ankle injuries before and after fatigue.

Design
Clinical trial in one group, not randomized, not blinded

Settings and conduct
All tests were performed at the sport rehabilitation lab at Bu-Ali Sina University. Twenty-seven healthy female collegiate ethletes participated in the present study in one group. The lateral landing was carried out from a step with a height of 30 cm before and after the fatigue protocol. The test conditions (normal and with tape and brace) were selected randomly and by drawing.

Participants/Inclusion and exclusion criteria
The participants were healthy with no history of ankle or knee injury in the past 12 months; no history of surgery or fractures of the lower extremities and no apparent deformities such as flat foot or high arch.

Intervention groups
The present study was performed on a group before and after induced fatigue. Fatigue protocol, kinesiotape and ankle brace were used as intervention in this study.

Main outcome variables
Time to stabilization; perceived stability and ground reaction were measured pre and post fatigue.

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20200204046368N2**
Registration date: **2020-03-31, 1399/01/12**
Registration timing: **retrospective**
Last update: **2020-03-31, 1399/01/12**
Update count: **0**

Registration date
2020-03-31, 1399/01/12

Registrant information

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-04-03, 1398/01/14

Expected recruitment end date
2019-04-09, 1398/01/20

Actual recruitment start date
2019-04-03, 1398/01/14

Actual recruitment end date
2019-04-09, 1398/01/20

Trial completion date
2019-04-10, 1398/01/21

Scientific title
Effects of prophylactic ankle supports on balance, perceived stability and ground reaction force during lateral landing before and after fatigue in healthy female college sport student

Public title
Prophylactic ankle support and performance in female

college sport student

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

No history of ankle or knee injury in the past 12 months No history of surgery in the lower extremities No history of fractures in the lower extremities No apparent deformities in the leg such as flat foot or high arch

Exclusion criteria:

Chronic diseases such as patellofemoral pain syndrome in lower extremity Any problems affecting postural control and balance

Age

From **18 years** old to **26 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **27**

Actual sample size reached: **27**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Hamedan University of Medical Sciences

Street address

Hamedan University of Medical Science, in front of People's Garden, Shahid Fahmideh Street

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Province

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Postal code

6517838678

Approval date

2019-02-10, 1397/11/21

Ethics committee reference number

IR.UMSHA.REC.1397.762

Health conditions studied

1

Description of health condition studied

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Time to stabilization

Timepoint

Pre and Post Fatigue

Method of measurement

Plantar pressure platform

2

Description

Perceived stability

Timepoint

Pre and postfatigue

Method of measurement

Questionnaire

3

Description

Ground reaction force

Timepoint

Before and after fatigue

Method of measurement

Plantar pressure platform

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Bruce fatigue protocol was used for exerting fatigue. The subjects ran on a treadmill until exhaustion while increasing speed and incline.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Bu-ali Sina university

Full name of responsible person

Ali Yalfani

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Sponsors / Funding sources

1

Sponsor
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Bu Ali-Sina University
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
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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
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Not applicable
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available
Title and more details about the data/document
Part of the data on the time to stabilization and vertical ground reaction force can be shared.
When the data will become available and for how long
Starting access after publishing study results
To whom data/document is available
Researchers working in academic institutions
Under which criteria data/document could be used
Some of the information obtained after the analysis will be possible only for specialists in this field.
From where data/document is obtainable
Ali Yalfani آدرس ایمیل: Ali_yalfani@yahoo.com
What processes are involved for a request to access data/document
Information will be available one year after publication.
Comments