Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effect of eight weeks of hopping and combined (balance- strength) training on balance, strength and function of lower limbs of soccer men with chronic ankle instability.

Protocol summary

Study aim

The effect of hopping and combined (balance - strength) trainings on balance, lower extremities strength and function in soccer men suffering chronic ankle instability.

Design

Clinical trial with control group, with parallel groups, without blinding, randomized.

Settings and conduct

The study was conducted at Kharazmi University, Subjects were selected and randomly divided into three groups of twelve (Hopping training: 12, Balance - Strength:12, Control:12).

Participants/Inclusion and exclusion criteria

Inclusion criteria: Men soccer players suffering chronic ankle instability , the age of 18 to 25 years, The subject should not undergo any other treatment at the time of this study. Exclusion criteria: History of surgery in the trunk and lower extremity, Acute sprain symptoms in the ankle for the past six months.

Intervention groups

Intervention group1:Hopping training consisting of 6 types of hopping training that were progressively intensified by adding weekly training were performed for 8 weeks, 3 times a week, and each session for 30 minutes. Intervention group 2: Combined training (balance - strength) consisted of 13 types of training that were performed for 8 weeks (3 session per week and 30 minute each session). the protocol included training such as plank bridge, working out with a resistance band and working with wobble board, also increasing the intensity of the set with increasing number of sets and repetitions, and increased the intensity of the training every two weeks. Control group: control group performed their daily activities for 8 weeks.

Main outcome variables

Balance, strength, function of lower extremities

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190830044643N1**
Registration date: **2019-12-21, 1398/09/30**
Registration timing: **retrospective**

Last update: **2019-12-21, 1398/09/30**
Update count: **0**

Registration date

2019-12-21, 1398/09/30

Registrant information

Name

hadi mohammadi nia samakosh

Name of organization / entity

The University of kharazmi

Country

Iran (Islamic Republic of)

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+98 11 3272 3604

Email address

std_shahramsamakosh92@khu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-04-04, 1397/01/15

Expected recruitment end date

2018-06-15, 1397/03/25

Actual recruitment start date

2018-04-09, 1397/01/20

Actual recruitment end date

2018-06-17, 1397/03/27

Trial completion date

2018-06-17, 1397/03/27

Scientific title
Effect of eight weeks of hopping and combined (balance-strength) training on balance, strength and function of lower limbs of soccer men with chronic ankle instability.

Public title
Effect of training program on balance, strength and function of soccer players with chronic ankle instability.

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
Men soccer players suffering chronic ankle instability. The age range of 18 to 25 years. The subject should not undergo any other treatment at the time of this study.

Exclusion criteria:
History of surgery in the trunk and lower extremity. Acute sprain symptoms in the ankle for the past six months.

Age
From **18 years** old to **25 years** old

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**
Actual sample size reached: **36**

Randomization (investigator's opinion)
Randomized

Randomization description
The subjects were randomized based on Random Number Generator software and then they were assigned to Hopping, combined (Balance - Strength), and control groups based on allocation concealment by SNOSE (Sequentially numbered, sealed, opaque envelopes) method.

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 Tarbiat Modarres University

Street address
Bridge Nasr, Jalal Al Ahmad, Tehran

City
Tehran

Province
Tehran

Postal code
33111-15477

Approval date
2018-03-12, 1396/12/21

Ethics committee reference number
IR.MODARES.REC.1397.043

Health conditions studied

1

Description of health condition studied
Ankle chronic sprain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Balance

Timepoint
Before and one week after intervention.

Method of measurement
Static with Bass Stick, Dynamic from Y test.

2

Description
Strength

Timepoint
Before and one week after intervention.

Method of measurement
Manual Muscle Test (North coast) mading from United States

3

Description
Function of the lower extremities

Timepoint
Before and one week after intervention.

Method of measurement
High Jump test and Hopping tests.

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: Hopping training were performed for 8 weeks consisting of six types of hop (hop forward,

backward, side, zigzag, etc.), that were progressively intensified by adding weekly training, three times a week and each session lasted for 30 minutes.

Category

Prevention

2

Description

Intervention group2: Combined training (balance - strength) consisted of 13 types of training that were performed for 8 weeks (3 session per week and 30 minute each session). the protocol included training such as plank bridge, working out with a resistance band and working with wobble board, The intensity of training also increased with increasing number of sets and repetitions and every two weeks the intensity of training increased.

Category

Prevention

3

Description

Control group: control group performed their daily activities.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

The University of kharazmi

Full name of responsible person

Hadi Mohammadi Nia Samakosh

Street address

School of Physical Education and Sport Sciences, Shahid Keshvari Complex, End of Mirdamad - End of South Razan Street, Tehran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research of the University of Kharazmi

Full name of responsible person

Ahamd Zanganeh

Street address

No.43. South Mofatteh Ave., Tehran, Iran

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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

Vice Chancellor for Research of the University of Kharazmi

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

The University of kharazmi

Full name of responsible person

Hadi Mohammadi Nia Samakosh

Position

Master of Science

Latest degree

Master

Other areas of specialty/work

Sport Injury and Corrective Exercise

Street address

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Full name of responsible person
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Position
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is 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
Yes - There is a plan to make this available

Analytic Code
Yes - There is a plan to make this available

Data Dictionary
Not applicable

Title and more details about the data/document
Only part of the data such as information about the original outcome or the our like can be shared.

When the data will become available and for how long
Beginning access from 2020.

To whom data/document is available
Researchers working in academic and scientific institutions.

Under which criteria data/document could be used
For scientific and research use and mention of research title and researcher name.

From where data/document is obtainable
Request from researcher email: std_shahramsamakosh92@khu.ac.ir

What processes are involved for a request to access data/document
Request from researcher email: std_shahramsamakosh92@khu.ac.ir

Comments