Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of static and dynamic balance exercises in water and drought on the balance performance of athletes with chronic ankle sprain

Protocol summary

Study aim

The aim of this study was to evaluate the effect of static and dynamic balance exercises in water and land on the balance performance of female athletes with chronic ankle sprain. In this study, 30 female athletes from Hamedan were selected randomly and divided into 2 groups of 15 exercises in water And land. The study was semi-experimental and the subjects performed six weeks of equilibrium exercises using such as mini trampolines and balance boards, etc., in two water and land conditions. Finally, the aim of this comparative study Static and dynamic balance of athletes in two water and land conditions using balance exercises.

Design

In this study, 30 athletes with chronic ankle sprain who are eligible to enter the study are selected. Participants are randomly divided into 2 exercises on land and water. Each group includes 15 people.

Settings and conduct

balance tests and anthropometric characteristics of the subjects will be collected at the Bu-Ali Sina University Rehabilitation Laboratory, and balance exercises will be carried out by subjects using equilibrium equipment in the hall and pool environment.

Participants/Inclusion and exclusion criteria

The criteria for entering the subjects include: ages 20-30 years; a history of at least one acute ankle sprain; and then a history of at least twice the chronic ankle sprain; Earning a score below 27 from the Cumberland Inventory; as well as none of the subjects in the last 3 months suffered from acute ankle sprain. The criteria for eliminating the subjects from the study were: symptoms of acute sprain such as inflammation in the past six weeks, any abnormality in the lower limb or injury in other areas of the body or people with skin and infectious diseases, heart failure, digestive disorders And kidney, open wounds, epilepsy, and allergies.

Intervention groups

Subjects are divided into two training groups in water and drought and the effects of equilibrium exercises on their static and dynamic equilibrium are evaluated.

Main outcome variables

1 - Exercise on the ground has a positive effect on the static balance of athletes with chronic ankle sprain. 2- Exercise on the dry surface has a positive effect on the dynamic balance of athletes with chronic ankle sprain. 3- Water exercises have a positive effect on the static balance of athletes with chronic ankle sprain. 4. Water exercises have a positive effect on the dynamic balance of athletes with chronic ankle sprain. 5. Equilibrium exercises in the water environment are more effective than static athletes with ankle sprain. 6. Equilibrium exercises in the water environment relative to dryness have a greater effect on dynamic equilibrium of athletes with chronic ankle sprain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170615034552N2**
Registration date: **2018-02-08, 1396/11/19**
Registration timing: **retrospective**

Last update: **2018-02-08, 1396/11/19**
Update count: **0**

Registration date

2018-02-08, 1396/11/19

Registrant information

Name

سمیه karami

Name of organization / entity

Bu-ali sina univercity

Country

Iran (Islamic Republic of)

Phone

+98 81 3254 8748

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Recruitment status
Recruitment complete
Funding source
دانشکده تربیت بدنی دانشگاه بوعلی سینای همدان مخارج را تامین کردند.

Expected recruitment start date
2017-01-15, 1395/10/26
Expected recruitment end date
2017-03-16, 1395/12/26
Actual recruitment start date
2017-01-15, 1395/10/26
Actual recruitment end date
2017-03-16, 1395/12/26
Trial completion date
empty

Scientific title
The effect of static and dynamic balance exercises in water and drought on the balance performance of athletes with chronic ankle sprain

Public title
The effect of balance exercises on ankle sprain
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Inclusion criteria: Age range 20 to 30 years A minimum of once acute ankle sprain and then a history of at least twice chronic chronic anesthesia The score below 27 from the Cumberland questionnaire none of the subjects experienced acute ankle sprain in the last 3 months
Exclusion criteria:
Signs of acute ankle sprain in the last 6 weeks any abdominal discomfort or injury in other areas of the body people with skin and infectious diseases; heart failure Digestive and renal disorders People with open epilepsy and various sensitivities
Age
From **20 years** old to **30 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Participant
- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **30**
Actual sample size reached: **30**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
At the time of the initial test before the start of the training period, as well as the secondary test, after the training, the researcher did not intervene in any tests, and the tests were conducted by people who did not know the design. The subjects also acted as if the tests were functional and completely inactive. The person who analyzed the data did not know about the study and generally examined the data.
Placebo
Not used
Assignment
Parallel
Other design features
This study has a Balanced Schedule Protocol for athletes with chronic ankle sprain.

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
دانشگاه بوعلی سینا
Street address
Pazhoohesh bridge. Bu-Ali Sina university.Hamedan
City
Hamedan
Province
Hamadan
Postal code
6519917313
Approval date
2017-01-14, 1395/10/25
Ethics committee reference number
IR.UMSHA.REC.1395.471

Health conditions studied

1

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

Primary outcomes

1

Description
Balance
Timepoint
Practice Before and After 6 Weeks of Training
Method of measurement
Biodex

Secondary outcomes

empty

Intervention groups

1

Description
Subjects were divided into 2 training groups in water and dry. The exercise was performed in the same way in both groups. The exercises consisted of 6 weeks of static and dynamic equilibrium exercises using equilibrium equipment such as mini trampoline, balance board, full foam roller and D-shaped foam roller, which the subject would perform by repeating 3 sessions a week. The exercises will be progressive and training will intensify over time.

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
sport clubs

Full name of responsible person
Somayeh Karami

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Golestan street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Bu Ali Sina University

Full name of responsible person
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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
Private

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
Bu Ali Sina University

Full name of responsible person
somaye karami

Position
Graduate student of pathology and corrective actions

Latest degree
Bachelor

Other areas of specialty/work
Others

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Person responsible for scientific inquiries

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Position
Doctoral dissertation of the heart

Latest degree

Ph.D.

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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

All statistical analyzes are analyzed using spss version 24 software

When the data will become available and for how long

Data analysis data can be disseminated to subjects within 2 months of data collection

To whom data/document is available

The information obtained from this research can be useful in rehabilitation for athletes with chronic ankle sprain and will be performed in sports clubs.

Under which criteria data/document could be used

In rehabilitation, athletes with chronic ankle sprain are applicable

From where data/document is obtainable

To get the data, you can refer to the author of the study

What processes are involved for a request to access data/document

The data is available to the author of the study

Comments