Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Investigation of the Effect of General Fatigue on Balance Tests Scores in Athletes with Anterior Cruciate Ligament Reconstruction

Protocol summary

Summary

The objective of this study is to investigate the effect of general fatigue on balance tests (star, single leg stance and stork standing) scores in athletes with anterior cruciate ligament reconstruction and healthy athletes. In this study, 10 athletes with anterior cruciate ligament reconstruction and 10 healthy male athletes in the group aged 18-40 years will be selected through convenience sampling. To do the study after the warm up,the subject performs balance tests.Then for general fatigue the subject runs on treadmill according to Bruce protocol until reaches to fatigue. The fatigue is measured by the Borg scale and a minimum score of 15 is acceptable. Immediately after fatigue, the subject will do balance tests again.Finally, the effect of fatigue on the balance tests score will be investigate.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201506281552N4**
Registration date: **2015-08-16, 1394/05/25**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2015-08-16, 1394/05/25

Registrant information

Name
Maryam Ebrahimian
Name of organization / entity
Shiraz University of Medical Sciences
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Iran (Islamic Republic of)
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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research Affairs of Shiraz University of Medical Sciences

Expected recruitment start date

2015-08-23, 1394/06/01

Expected recruitment end date

2015-10-07, 1394/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigation of the Effect of General Fatigue on Balance Tests Scores in Athletes with Anterior Cruciate Ligament Reconstruction

Public title

Investigation of the Effect of General Fatigue on Balance Tests Scores in Athletes with Anterior Cruciate Ligament Reconstruction

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Unilateral rupture of the anterior cruciate ligament; no neurological diseases and cardiovascular disorders; absence of deformity in the lower extremity; full range of motion knee, hip and ankle joints; no other ligament tear of the knee; absence of any fracture in the lower extremity; Exclusion criteria: Having pain during the tests; inability to complete the fatigue protocol

Age

From **18 years** old to **40 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

N/A

Randomization description

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

Shiraz University of Medical Sciences

Street address

in front of Felestin St., Zand Ave.

City

Shiraz

Postal code

1433671348

Approval date

2014-12-14, 1393/09/23

Ethics committee reference number

CT-P-9373-7103

Health conditions studied

1

Description of health condition studied

Anterior cruciate ligament rupture

ICD-10 code

S83.5

ICD-10 code description

Sprain and strain involving (anterior)(posterior) cruciate ligament of knee

Primary outcomes

1

Description

Balance tests score

Timepoint

Before and after general fatigue

Method of measurement

recording balance tests score

Secondary outcomes

empty

Intervention groups

1

Description

In intervention group 1, general fatigue applies with Bruce protocol

Category

Prevention

2

Description

In intervention group 2, general fatigue applies with Bruce protocol

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehabilitation Sciences School of Shiraz University of Medical Sciences

Full name of responsible person

Esmaeil Shokri

Street address

Abiverdi No.1 St., Shahid Chamran Blvd.

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research Affirs of Shiraz University of Medical Sciences

Full name of responsible person

Dr. Sayed Basir Hashemi

Street address

7th fioor of Central Building of Shiraz University of Medi cal Sciences,In front of Felestin Street, Zand Avenue.

City

Shiraz

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 Affirs of Shiraz University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Rehabilitation Sciences School of Shiraz University of Medical Sciences

Full name of responsible person

Zahra Abid

Position

B.S student of physiotherapy

Other areas of specialty/work

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master of science/faculty member

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Person responsible for updating data

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Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty