

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Investigating effects of balance training with virtual reality system in patients with chronic ankle instability

Protocol summary

Summary

Ankle sprain is one of the most common injuries among the athletes. Recurrence rate of this injury is about 70%. 85% of all ankle sprains are lateral ankle sprains. According to some reports 74% of patients with ankle sprain would have some symptoms which are known as chronic ankle instability. Today virtual rehabilitation systems are used to improve patients motivation and their engagements in therapy sessions and also to get better results of interventions. Virtual reality system provide the ability of controlling duration and intensity of interventions and the environment modification. In our study 30 patients with chronic ankle instability will be allocated to 3 groups of 1:regular training 2:training with virtual reality system using Nintendo Wii balance board and 3:control group. 10 sessions of training in 3 weeks are designed for two groups of interventions. Patients balance will be measured 3 times: 1-before 1st session 2-after 5th session 3-after the last session

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013081214331N1**

Registration date: **2013-09-14, 1392/06/23**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-09-14, 1392/06/23

Registrant information

Name

Kazem Hessampour

Name of organization / entity

Shiraz University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice chancellor of research affairs of Shiraz University Of Medical Sciences

Expected recruitment start date

2013-09-01, 1392/06/10

Expected recruitment end date

2013-10-17, 1392/07/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating effects of balance training with virtual reality system in patients with chronic ankle instability

Public title

Balance training in patients with chronic ankle instability

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 1- history of lateral ankle sprain which has happened at least three month ago 2- giving way or instability feeling 3- no pain in the first intervention session Exclusion criteria: 1- history of any neurological diseases which affect the balance 2- patients with signs of imbalance or dizziness 3-patients who have taken Anti-histamines, Anticholinergics, Hypnotics or Sedatives 4-patients with hearing problems 5-patients with a history of diabetes, heart arrhythmia, ventricular

problems or any dysesthesia 6-professional athletes

Age

From **18 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double 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 Shiraz University Of Medical Sciences

Street address

vice chancellor of reserch affairs,7th floor,central building of Shiraz University Of Medical Science,Zand avenue,Shiraz

City

Shiraz

Postal code

Approval date

2012-10-02, 1391/07/11

Ethics committee reference number

CT-P-91-3609

Health conditions studied

1

Description of health condition studied

ankle sprain

ICD-10 code

S93.4

ICD-10 code description

Sprain and strain of ankle

Primary outcomes

1

Description

displacement of Center Of Pressure(COP)

Timepoint

1-before intervention 2-5th session of intervention 3-10th session of intervention

Method of measurement

in order to measure the balance of the patients we use force platform with 120 HZ of frequency

Secondary outcomes

empty

Intervention groups

1

Description

1-Intervention group 1(Usual balance exercises): The subjects will participate in 10 sessions of exercises during 4 weeks. In each session they will have 5 minutes of warm up, 15 minutes of balance exercises on tilt board and 5 minutes of cool down.

Category

Rehabilitation

2

Description

2-Intervention group 2(Balance exercises with Nintendo Wii): The subjects will participate in 10 sessions of exercises during 4 weeks. In each session they will have 5 minutes of warm up, 15 minutes of balance exercises with Nintendo Wii balance board (ski game) and 5 minutes of cool down.

Category

Rehabilitation

3

Description

3- Control group: No intervention will be used for this group and we will only assess balance of this group's subjects at the beginning of our study and 4 weeks later.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Physical Therapy and Medical Centers of Shiraz University Of Medical Sciences

Full name of responsible person

Street address

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor of research affairs of Shiraz University Of Medical Sciences

Full name of responsible person

Dr Poustforoosh

Street address

Vice chancellor of research affairs, 7th floor, central building of Shiraz University Of Medical Sciences, 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 of research affairs 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**

Student Research Committee, Shiraz University Of Medical Sciences

Full name of responsible person

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Position

Ms candidate of Physical therapy

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Person responsible for scientific inquiries

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Position

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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