

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Comparing the immediate effect of distal versus proximal-distal kinsiotape on muscle strength, functional performance and gait initiation profiles in athletes with and without functional ankle instability

Protocol summary

Study aim

Comparing the immediate effect of distal versus proximal-distal kinsiotape on muscle strength, functional performance and gait initiation profiles in athletes with and without functional ankle instability

Design

In this study, 15 healthy athletes and 15 athletes with functional ankle instability will be chosen purposefully according to the inclusion criteria.

Settings and conduct

This study will be performed in Biomechanics laboratory of Tehran University of Medical sciences.

Participants/Inclusion and exclusion criteria

Inclusion and Exclusion criteria in this study will be according to the position statement of the International Ankle Consortium for selection criteria for patients with chronic ankle instability in controlled research. Athletes aged 18 to 32 with a history of ankle sprain, at least six months to one year old, with no history of fracture or other musculoskeletal injuries, will participate in this study.

Intervention groups

Interventions in each groups (healthy athletes and athletes with functional ankle instability) are as follows: Distal Kinsio Taping Intervention: kinsio tape is applied on peroneus longus muscle to facilitate it. Proximal-distal kinsio taping intervention: in this intervention, in addition to facilitation technique for Peroneus Longus, facilitating kinsio tape for gluteus medius is used too.

Main outcome variables

Strength of hip abductors and ankle evertors; Functional performance tests; Temporal and spatial parameters of center of pressure (anticipatory, weight transfer and locomotive phase) in gait initiation

General information

Reason for update

Acronym

Comparing the two method of taping on muscle strenght and gait profiles in athletes

IRCT registration information

IRCT registration number: **IRCT20171028037057N1**

Registration date: **2018-01-17, 1396/10/27**

Registration timing: **registered_while_recruiting**

Last update: **2018-01-17, 1396/10/27**

Update count: **0**

Registration date

2018-01-17, 1396/10/27

Registrant information

Name

Sara Fereydounnia

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences

Expected recruitment start date

2017-12-21, 1396/09/30

Expected recruitment end date

2018-07-22, 1397/04/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the immediate effect of distal versus proximal-distal kinsiotape on muscle strength, functional performance and gait initiation profiles in athletes with and without functional ankle instability

Public title

Comparing the immediate effect of distal versus proximal-distal tape on muscle strength, functional performance and gait initiation profiles in athletes with and without functional ankle instability

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Ages of participants ranged from 18 to 32 year old A history of ankle sprain in one foot (6 months-1 year needed have be passed since the initial injury and repeated ankle sprain needed to have occurred at least once during this period and participants also needed to feel 'giving way' in their ankles) Foot and Ankle Ability Measure (FAAM): ADL scale <90%; Sport scale <80% Fibular mobility test and fibula position in inferior tibiofibular must be normal.

Exclusion criteria:

Pain and restriction in both ankles during the test and inability to perform hopping History of surgery in ankle History of diabetes, visual disturbances, vestibular disorders, dizziness, neurological disorders, musculoskeletal trauma in lower limbs, and cognitive problems Exercise extensively before the test Inability to do the test Losing balance during the test Reluctance of participants to do the test Skin allergy to kinsio tape

AgeFrom **18 years** old to **32 years** old**Gender**

Both

Phase

N/A

Groups that have been masked*No information***Sample size**Target sample size: **30****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**

Ethics committee of Medicine faculty of Tehran University of Medical sciences

Street address

Building No.1, the northern door of university, Poursina street, Ghods st, Enghelab Avenue

City

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Tehran

Postal code

1417755354

Approval date

2017-12-16, 1396/09/25

Ethics committee reference number

IR.TUMS.MEDICINE.REC.1396.4255

Health conditions studied**1****Description of health condition studied**

Disorder of ligament

ICD-10 code

M24.2

ICD-10 code description

Instability secondary to old ligament injury

Primary outcomes**1****Description**

Strenght of the hip abductor muscles

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in nioton using handhend dynamometer.

2**Description**

Strenght of the ankle evertor muscles

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in nioton using handhend dynamometer.

3

Description

Side Hop Test

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in second using chronometer.

4

Description

Figure of 8 Hop Test

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in second using chronometer.

5

Description

Star Excursion Balance Test

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter using tape.

6

Description

Reaction Phase Time

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in milisecond using force plate and Excel software.

7

Description

Anticipatory Phase Time

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in milisecond using force plate and Excel software.

8

Description

COP displacement in anteroposterior and mediolateral direction in anticipatory phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter using force plate and Excel software.

9

Description

COP displacement in anteroposterior and mediolateral direction in weight transfer phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter using force plate and Excel software.

10

Description

COP displacement in anteroposterior and mediolateral direction in locomotive phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter using force plate and Excel software.

11

Description

Speed of COP displacement in anteroposterior and mediolateral direction in anticipatory phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter on second using force plate and Excel software.

12

Description

Speed of COP displacement in anteroposterior and mediolateral direction in weight transfer phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter on second using force plate and Excel software.

13

Description

Speed of COP displacement in anteroposterior and mediolateral direction in locomotive phase

Timepoint

Before the intervention, 30 minutes after the intervention

Method of measurement

It is calculated in centimeter on second using force plate and Excel software.

Secondary outcomes

empty

Intervention groups

1

Description

Proximal- distal kinsio taping intervention: In this intervention, in addition to facilitation technique for Peroneus Longus, facilitating kinsio taping for gluteus medius is used too. For taping gluteus medius, participant lie down with the affected h

Category

Rehabilitation

2

Description

Distal Kinsio Taping Intervention: Distal kinsio taping is applied on peroneus longus muscle to facilitate it. The participant position is supine or long sitting. The anchor of kinsio tape is applied to fibular head. The ankle is planter flexed and inv

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

school of Rehabilitation, Tehran University of Medical Sciences

Full name of responsible person

Sara Fereydounnia, PT, Ph.D Candidate, TUMS

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Number 336, Next to Safialishah Street, Piche Shemiran, Enghelab Avenue

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

Dr. Mohammadali Sahraian

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

No

Title of funding source

Deputy for Research

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

Tehran University of Medical Sciences

Full name of responsible person

Sara Fereydounnia

Position

Pt, Ph.D Candidate

Latest degree

Master

Other areas of specialty/work

Rehabilitation management

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Because sharing IPD is useless according to our study, We should consider all the sample size.

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Not applicable

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

Not applicable

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

The results of the primary outcome measure will be shared.

When the data will become available and for how long

These data will become available 2 months after publication.

To whom data/document is available

The results will be available for people working in academic institutions.

Under which criteria data/document could be used

people can use the data only for the rehabilitative purposes.

From where data/document is obtainable

Miss Sara Fereydounnia will be in charge of communication via E-mail: s-fereydounnia@razi.tums.ac.ir

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

After receiving the request and the main purposes for needing the data, we will respond to the request maximally to one month.

Comments