

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 May 2026

The effect of TECAR therapy and myofascial stretch on iliotibial band flexibility and functional activity in semi elite athletes

Protocol summary

Study aim

TECAR therapy and myofascial stretch on iliotibial band flexibility and functional activity

Design

Two arm parallel group randomised trial with single-blinded and outcome assessment

Settings and conduct

The study is performed as a one-way blind and the participants are not informed about the type of treatment. This study is performed to obtain more information to increase efficiency and improve the treatment process in athletes. The modality of TECAR therapy as a device to accelerate the process of soft tissue flexibility is compared with the routine method and this study is implemented among volunteers and semi-professional athletes in Qom province.

Participants/Inclusion and exclusion criteria

1. The person has no iliotibial band clinical signs 2. The person is in the age range of 20 to 40 years 3. Unilateral or bilateral confirmation of shortness in the iliotibial band using ober test exclusion criteria: 1- Surgery in the last three months 2 - Severe structural disorders such as genu varum 3. Balance disorder 4- Using assistive devices

Intervention groups

The comparison group includes eligible individuals (positive Ober test) who receive stretch intervention and receive a TECAR therapy with the device turned off. The intervention group is eligible individuals (positive Ober test) who receive stretch intervention and TECAR therapy.

Main outcome variables

-Iliotibial band flexibility -Jump on one foot -vertical jump
-Hip abductor muscle strength

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210804052081N1**

Registration date: **2021-08-27, 1400/06/05**

Registration timing: **registered_while_recruiting**

Last update: **2021-08-27, 1400/06/05**

Update count: **0**

Registration date

2021-08-27, 1400/06/05

Registrant information

Name

zeinab sheikhshoae

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 25 3288 0994

Email address

shoae.pt@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-08-10, 1400/05/19

Expected recruitment end date

2021-09-20, 1400/06/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of TECAR therapy and myofascial stretch on iliotibial band flexibility and functional activity in semi elite athletes

Public title

TECAR therapy and myofascial stretch on iliotibial band flexibility and functional activity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Be a semi-professional athlete The person has no iliotibial band clinical signs Unilateral or bilateral confirmation of shortness in the iliotibial band using test

Exclusion criteria:

Previous surgical history in the last 3 months in any of the musculoskeletal structures People who have had surgery more than twice Structural and postural disorders such as severe kyphosis or scoliosis in the individual Having uncorrected vision disorders Neurological disorders Respiratory and vestibular diseases Use of any medications or substances that affect balance Structural disorders in the pelvis and lower limbs that affect a person's balance Use walking aids such as a cane The person has rheumatic disease

Age

From **20 years** old to **40 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant

Sample size

Target sample size: **16**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, patients are not aware of the treatments, for the treatment group, the device is used with predefined settings, and for the control group, the probe is used to turn off the device. But the therapist is aware of group therapy.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Iran University of Medical Sciences

Street address

Mirdamad, Shah Nazari St., Maddakaran Alley, Iran School of Rehabilitation, Iran

City

tehran

Province

Tehran

Postal code

۱۳۴۸۷ ۱۵۴۵۹

Approval date

2021-07-16, 1400/04/25

Ethics committee reference number

IR.IUMS.REC.1400.335

Health conditions studied

1

Description of health condition studied

Semi-professional athletes with iliotibial band shortening

ICD-10 code

Y93.79

ICD-10 code description

Activity, other specified sports and athletics

Primary outcomes

1

Description

Iliotibial band flexibility

Timepoint

Before the intervention - after the first week of the intervention - the second week and the third week after the intervention

Method of measurement

Use of goniometer

2

Description

abductor muscle strength

Timepoint

Before the intervention - after the first week of the intervention - the second week and the third week after the intervention

Method of measurement

manual muscle test

Secondary outcomes

1

Description

one leg jump

Timepoint

Before the intervention and third week after the intervention

Method of measurement

tape measure

2

Description

vertical jump

Timepoint

Before the intervention and third week after the intervention

Method of measurement

tape measure

Intervention groups

1

Description

Intervention group: In this group, the stretching technique mentioned in the article is performed four times by the therapist for the participants. The TECAR probe is then placed for 10 minutes in capacitive mode with settings of 800 bursts per second, 400-microsecond burst duration, 800-microsecond inter burst interval in the area where the tendon and gluteal muscles- fascia tensor connect to the area slightly above tibia gerdy's tubercle.

Category

Rehabilitation

2

Description

In this group, the stretching technique mentioned in the article is performed four times by the therapist for the participants. The TECAR probe is then placed for 10 minutes in the area where the tendon and gluteal muscles- fascia tensor connect to the area slightly above tibia gerdy's tubercle. In this group, the device is off.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Baharan Physiotherapy Clinic

Full name of responsible person

Zainab Sheikh Shoaee

Street address

Ghoom, Jomhory Blvd., Alley 60, No. 16

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

zainab sheikh shoaee

Street address

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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

Iran University of Medical Sciences

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

Iran University of Medical Sciences

Full name of responsible person

zeinab sheikh shoaee

Position

master student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

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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

No - There is not 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

No - There is not a plan to make this available

Title and more details about the data/document

All potential data can be shared after individuals are unrecognizable

When the data will become available and for how long

Access period starts 6 months after the results are published

To whom data/document is available

People who are also in the industry can apply for them

Under which criteria data/document could be used

Analysis is not allowed to prove unscientific claims. For example, device manufacturers do not have the right to use data to advance their goals.

From where data/document is obtainable

Email address shoaae.pt@gmail.com

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

starting the access period 6 months after printing the results and obtaining permission from the relevant project instructor and checking the honesty in using the documents in less than 3 weeks will provide the applicant with the files.

Comments