

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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**

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

#### **City**

Ghoum

#### **Province**

Ghoum

#### **Postal code**

3716766367

#### **Phone**

+98 25 3288 0994

#### **Email**

shoaee.pt@gmail.com

## **Sponsors / Funding sources**

### 1

### **Sponsor**

#### **Name of organization / entity**

Iran University of Medical Sciences

#### **Full name of responsible person**

zainab sheikh shoaee

#### **Street address**

Mirdamad, Madar Square, Shah Nazari St., Maddakaran St.

#### **City**

Tehran

#### **Province**

Tehran

#### **Postal code**

1545913487

#### **Phone**

+98 25 3288 0994

#### **Email**

shoaee.pt@gmail.com

### **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

#### **Street address**

Mirdamad, Madar Square, Shah Nazari St., Maddakaran St.

#### **City**

tehran

#### **Province**

Tehran

#### **Postal code**

1545913487

**Phone**

+98 25 3288 0994

**Email**

shoaae.pt@gmail.com

## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**

Iran University of Medical Sciences

**Full name of responsible person**

zeinab sheikh shoaae

**Position**

Master student of physiotherapy

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

**Street address**

Tehran, Mirdamad, Madar Square, Shah Nazari St.,  
Maddakaran St., Faculty of Rehabilitation

**City**

Tehran

**Province**

Tehran

**Postal code**

1545913487

**Phone**

+98 25 3288 0994

**Email**

shoaae.pt@gmail.com

## Person responsible for updating data

**Contact**

**Name of organization / entity**

Iran University of Medical Sciences

**Full name of responsible person**

zainab sheikh shoaae

**Position**

master student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

**Street address**

Mirdamad, Madar Square, Shah Nazari St.,

Maddakaran St.

**City**

Tehran

**Province**

Tehran

**Postal code**

1545913487

**Phone**

+98 25 3288 0994

**Email**

shoaae.pt@gmail.com

## 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**