Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 sheikhshoaee

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 25 3288 0994

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shoaee.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
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Ghoum, Jomhory Blvd., Alley 60, No. 16
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Iran University of Medical Sciences
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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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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 shoaee.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