

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

The Effect of Adding Tecartherapy On routine physicalTherapy On Pain And Kinetic Changes In Runners With Medial Tibial Stress Syndrome

Protocol summary

Study aim

The effect of adding tecartherapy on routine physiotherapy on pain and kinetic changes in runners with medial tibial stress syndrome

Design

The study will be randomized, with a sample size of 40 people in parallel groups. Eligible patients will be randomly assigned to the intervention group and control group using the blocking method.

Settings and conduct

intervention group with tecar combined with routine physiotherapy which includes tens and ultrasound. A special training program that includes stretching and strengthening exercises and group B as a control group that receives only routine physiotherapy according to the protocol of the first group. This protocol will be used and the site of this project is the Faculty of Rehabilitation of Iran University of Medical Sciences.

Participants/Inclusion and exclusion criteria

Inclusion criteria: any gender, people aged 20-40 years, have a history of pain during exercise in the inner-posterior part of the tibia, and pain by touching the posterior-inner edge of the tibia is about 5 cm in place, Pain that occurs with exercise and occurs during and after exercise, the presence of pain in the dominant affected leg, subjects at least a week to suffer from this pain. Exclusion criteria: imbalance, middle ear disorder, current or previous radiological signs of a stress fracture or other type of fracture, local infection or osteomyelitis, tumor in the area, previous surgery on the same leg, previous use of tecartherapy to treat tibial medial stress syndrome, pregnancy, implanted pacemaker, skin disorder and numbness in the area.

Intervention groups

Two different treatment groups. The group treated with tecar therapy and the group treated with the usual physiotherapy.

Main outcome variables

Pain intensity, balance, kinetic changes

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220301054160N1**

Registration date: **2022-04-08, 1401/01/19**

Registration timing: **prospective**

Last update: **2022-04-08, 1401/01/19**

Update count: **0**

Registration date

2022-04-08, 1401/01/19

Registrant information

Name

Saeideh Babaeitabar

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 21 4450 8936

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-04-20, 1401/01/31

Expected recruitment end date

2022-09-22, 1401/06/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Adding Tecartherapy On routine physicalTherapy On Pain And Kinetic Changes In Runners With Medial Tibial Stress Syndrome		Secondary Ids
		empty
Public title	The Effect of Adding Tecartherapy On routine physicalTherapy On Pain And Kinetic Changes In Runners With Medial Tibial Stress Syndrome	Ethics committees
Purpose	Treatment	<u>1</u>
Inclusion/Exclusion criteria		Ethics committee
Inclusion criteria:	Subjects of any gender People aged 20-40 years. Have a history of pain during exercise in the inner-posterior part of the tibia bone and the pain spreads by touching the posterior-inner edge of the tibia about 5 cm in place Existence of pain that occurs with exercise and occurs during and after exercise The presence of pain in the affected leg is predominant Have this pain for at least a week	Name of ethics committee
Exclusion criteria:	Patients with current or previous radiological symptoms of stress fractures or other types of fractures Local infection or osteomyelitis in the same foot Tumor in the area Previous surgery on the same leg Previous use of tecartherapy to treat tibial internal stress syndrome. Pregnancy Disorder and numbness in the area Patients with balance disorders, patients with middle ear disorder	Ethics committee of Semnan University of Medical sciences
Age	From 20 years old to 40 years old	Street address
Gender	Both	No5,Dehkade Olmpic Ave.Zibadasht Blv,Tehran Town
Phase	N/A	City
Groups that have been masked	No information	Tehran
Sample size	Target sample size: 40	Province
Randomization (investigator's opinion)	Randomized	Tehran
Randomization description	Eligible patients are randomly assigned to intervention and control groups by the block method. Random numbers 1 and 2 are produced using www.randomization.com, then are placed in sealed envelopes in order. When patients are referred, one envelope is opened in order. If the number in the envelope is 1, the patient enters the intervention group with tecartherapy and routine physiotherapy, and if the number is 2, patient enters the control group, which includes only routine physiotherapy.	Postal code
Blinding (investigator's opinion)	Not blinded	1485963635
Blinding description		Approval date
Placebo	Not used	2022-03-13, 1400/12/22
Assignment	Parallel	Ethics committee reference number
Other design features		IR.SEMUMS.REC.1400.343
		Health conditions studied
		<u>1</u>
		Description of health condition studied
		Medial Tibial Stress Syndrome
		ICD-10 code
		S86.89
		ICD-10 code description
		Other injury of other muscles and tendons at lower leg level
		Primary outcomes
		<u>1</u>
		Description
		Pain
		Timepoint
		In the first session and after the completion of 9 treatment sessions
		Method of measurement
		Visual scale of pain
		<u>2</u>
		Description
		Measurement of ground reaction force
		Timepoint
		In the first session and after the completion of 9 treatment sessions
		Method of measurement
		Force plate
		<u>3</u>
		Description

Measuring the average displacement velocity

Timepoint
In the first session and after the completion of 9 treatment sessions

Method of measurement
Force plate

4

Description
Measure the amount of displacement

Timepoint
In the first session and after the completion of 9 treatment sessions

Method of measurement
Force plate

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Tecar treatment group, 9 sessions of tecar therapy, the total time of treatment with tecar intervention in this study will be 15 minutes, which will be used as 5 minutes in capacitive mode and 10 minutes in resistance mode, and with the usual physiotherapy treatment that is exactly the same.

Category
Treatment - Devices

2

Description
Control group: The routine physiotherapy treatment group consists of nine treatment sessions including sessions on a daily basis. 20 minutes of high frequency tens with a frequency of 100 Hz and a pulse duration of 40 microseconds will be used at the site of pain, followed by 3 minutes of 1MHz ultrasound with a 20% diode cycle at the site of pain.

Category
Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center
Physiotherapy Clinic of Iran University

Full name of responsible person
Saeideh Babaeitabar

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Nezam Ave, Madar Square, Mirdamad

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Semnan University of Medical Sciences

Full name of responsible person
Rosita Hedayati

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3514799442

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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
saeideh Babaeitabar

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
Persons

Person responsible for general inquiries

Contact

Name of organization / entity
Semnan University of Medical Sciences

Full name of responsible person
saeideh Babaeitabar

Position
Graduate Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available