

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

The effect of calf muscles dry needling in range of motion of ankle and pain severity of plantar fasciitis

Protocol summary

Summary

We want to study the effect of calf muscles needling on plantar fasciitis. We will select twenty patients with plantar fasciitis diagnosis and without any other causes of heel pain who referred to Imam Reza rehabilitation clinic. They will be divided to two groups A and B randomly. Patients in both groups will be trained necessary educations for calf muscles and painful areas massage with cold and stretch and will be prescribed 50 mg diclofenac sodium for 2 divided doses for 4 weeks and will be given a heel pad. In addition, group B patients will receive dry needling of calf muscles trigger points once a week. Primary outcome is pain severity and secondary outcome is ankle range of motion. Evaluation is determination of trigger points, ankle movement goniometry, determination of VAS (visual analog scale) and feeling of foot function index checklist which will be performed at the beginning and end of study.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201106104641N4**

Registration date: **2011-07-18, 1390/04/27**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-07-18, 1390/04/27

Registrant information

Name

Bina Eftekharsadat

Name of organization / entity

Tabriz university of medical sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 1330 3193

Email address

binasadat@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Tabriz physical medicine and rehabilitation center

Expected recruitment start date

2010-10-23, 1389/08/01

Expected recruitment end date

2011-06-21, 1390/03/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of calf muscles dry needling in range of motion of ankle and pain severity of plantar fasciitis

Public title

The effect of calf muscles needling on plantar fasciitis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Plantar fasciitis diagnosis according to history and physical examination; Patient satisfaction.

Exclusion criteria: Other causes of heel pain such as cystic mass in x-ray; Lumbosacral radiculopathy; History of corticosteroid injection to heel in previous 6 months; Any dry needling contraindications such as diabetes mellitus; Sensitivity to coldness

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 20

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tabriz university of medical sciences

Street address

University avenue

City

Tabriz

Postal code

Approval date

2011-01-19, 1389/10/29

Ethics committee reference number

8586/4/5

Health conditions studied

1

Description of health condition studied

Plantar fasciitis

ICD-10 code

M72

ICD-10 code description

Plantar fascial fibromatosis, Plantar fasciitis

Primary outcomes

1

Description

Pain severity

Timepoint

Before and immediately after intervention and 8 weeks after intervention

Method of measurement

Pain measuring visual analog scale and foot function index check list

Secondary outcomes

1

Description

Ankle range of motion

Timepoint

Before and 8 weeks after intervention

Method of measurement

Ankle movements goniometry

Intervention groups

1

Description

Intervention group: Plantar muscles and painful areas massage with cold and stretch 3 times a day, each time 10 minutes and diclofenac sodium 50 mg per day and heel pad for 4 weeks and calf muscles trigger points dry needling once a week for 4 weeks.

Category

Treatment - Other

2

Description

Control group: Plantar muscles and painful areas massage with cold and stretch 3 times a day, each time 10 minutes and diclofenac sodium 50 mg per day and heel pad for 4 weeks.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Reza hospital rehabilitation clinic

Full name of responsible person

Doctor Bina Eftekhari Sadat

Street address

Imam Reza hospital, Golgasht Avenue

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Physical Medicine and Rehabilitation Research Center of Tabriz

Full name of responsible person

Doctor Yaghoob Salek Zamani

Street address
Imama Reza Hospital, Golgasht avenue

City
Tabriz

Grant name

Grant code / Reference number

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

Title of funding source
Physical Medicine and Rehabilitation Research Center of Tabriz

Proportion provided by this source
100

Public or private sector
empty

Domestic or foreign origin
empty

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
empty

Person responsible for general inquiries

Contact

Name of organization / entity
Physical medicine and rehabilitation center of Tabriz

Full name of responsible person
Doctor Bina Eftekhari Sadat

Position
Full-time Assistant Professor

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Rehabilitation ward, Imam Reza Hospital

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Doctor Bina Eftekhari Sadat

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Full-time Assistant Professor

Other areas of specialty/work

Street address

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty

Study Protocol
empty

Statistical Analysis Plan
empty

Informed Consent Form
empty

Clinical Study Report
empty

Analytic Code
empty

Data Dictionary
empty