Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 goniometery, 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

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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 siences
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 goniometery

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 Eftekhar 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 Yaghoub 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 Eftekhar Sadat
Position
Full-time Assistant Professor
Other areas of specialty/work
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Person responsible for scientific inquiries

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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