

# 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****Street address**

Imam Reza hospital, Golgasht Avenue

**City**

Tabriz

**Postal code****Phone**

+98 914 314 6915

**Fax****Email**

binasadat@tbzmed.ac.ir

**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**

Rehabilitation ward, Imam Reza Hospital

**Full name of responsible person**

Doctor Bina Eftekhari Sadat

**Position**

Full-time Assistant Professor

**Other areas of specialty/work****Street address**

Imam Reza hospital, Golgasht Avenue

**City**

Tabriz

**Postal code****Phone**

+98 914 314 6915

**Fax****Email**

binasadat@tbzmed.ac.ir ; binasadat@gmail.com

**Web page address****Person responsible for updating data****Contact****Name of organization / entity****Full name of responsible person**

Doctor Bina Eftekhari Sadat

**Position**

Full-time Assistant Professor

**Other areas of specialty/work****Street address****City**

Tabriz

**Postal code****Phone****Fax****Email****Web page address****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*