Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The effect of dry needling on pain and Range of Motion of ankle joint and thickness of plantar fascia in patient with plantar fasciitis

Protocol summary

Summary

Objective: Evaluation the effect of dry needle on pain and the ankle sprain motion range and plantar fascia thickness changes in patients with Plantar Fasciitis. Study design: Random (shuffle bags method), without placebo control, single central. Experimental population: Patients with Plantar Fasciitis who referred to Neuromuscular Rehabilitation research center of Semnan University of medical sciences Inclusion criteria: Patients with PFs in aged 40 to 60 years; having trigger point in gastro or soleus muscles or both of them; thickness plantar fascia more than 4 mm; foot pain in first steps in the morning and at least six months has passed since the onset of pain; the pain level in visual analog scale is at least four; non-athlete persons; plantar flexion or dorsi flexion is less than normal range. Exclusion criteria: Diabetes; hypersensitivity to needle; fear of needle; pregnancy; infection; peripheral neuropathy; hemophilia or coagulation problems; history of plantar fascia surgery; history of injection in the last three months. Sample size, intervention, intervention time and outcome of the study: Sample size of this study is 30 persons will be divided into intervention (15 persons) and control (15 persons) group. Intervention group: Patients were undergoing to dry needle (according protocol). After dry needling for four weeks so once a week, examinations of the level of pain and range of motion and thickness plantar fascia will be performed. Also, one month after treatment, the variables will be measured again to follow up the treatment. Control group: In the control group will not perform any treatments and it just to compare with intervention group for level of thickness plantar fascia, the level of pain and range of motion will be measured at the beginning of the study and one month later.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017080525732N22**
Registration date: **2017-08-23, 1396/06/01**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2017-08-23, 1396/06/01

Registrant information

Name

Alireza Emadi

Name of organization / entity

Semnan University of Medical Sciences, Semnan, Iran

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Recruitment status

Recruitment complete

Funding source

Semnan University of Medical Sciences

Expected recruitment start date

2017-08-23, 1396/06/01

Expected recruitment end date

2018-02-20, 1396/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of dry needling on pain and Range of Motion of ankle joint and thickness of plantar fascia in patient with plantar fasciitis

Public title
The effect of dry needling on pain and Range of Motion of ankle joint and thickness of plantar fascia in patient with plantar fasciitis
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria: Patients with PFs in aged 40 to 60 years; having trigger point in gastro or soleus muscles or both of them; thickness plantar fascia more than 4 mm; foot pain in first steps in the morning and at least six months has passed since the onset of pain; the pain level in visual analog scale is at least four; non-athlete persons; plantar flexion or dorsi flexion is less than normal range. Exclusion criteria: Diabetes; hypersensitivity to needle; fear of needle; pregnancy; infection; peripheral neuropathy; hemophilia or coagulation problems; history of plantar fascia surgery; history of injection in the last three months.
Age
From **40 years** old to **60 years** old
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **30**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Semnan University of Medical Sciences
Street address
Semnan University of Medical Sciences, Basij Blvd, Semnan
City
semnan
Postal code
3514799442
Approval date
2017-07-24, 1396/05/02
Ethics committee reference number
IR.semums.REC.1396.133

Health conditions studied

1

Description of health condition studied
Plantar fasciitis
ICD-10 code
M72.2
ICD-10 code description
Plantar fasciitis

Primary outcomes

1

Description
Plantar Fascia Thickness
Timepoint
Before and after using a dry needle
Method of measurement
Ultrasonography

Secondary outcomes

empty

Intervention groups

1

Description
Control group: In the control group will not perform any treatments and it just to compare with intervention group for level of thickness plantar fascia, the level of pain and range of motion will be measured at the beginning of the study and one month later.
Category
Rehabilitation

2

Description
Intervention group: Patients were undergoing to dry needle (according protocol). After dry needling for four weeks so once a week, examinations of the level of pain and range of motion and thickness plantar fascia will be performed. Also, one month after treatment, the variables will be measured again to follow up the treatment.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Neuromuscular Rehabilitation Research Center

Full name of responsible person
Ziaeddin Safavi-Farokhi
Street address
Ghods Blvd, Semnan
City
Semnan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Deputy of Research and Technology, Semnan University of Medical Sciences
Full name of responsible person
Dr Mohammad Reza Asgari
Street address
Semnan University of Medical Sciences, Basij Blvd, Semnan
City
Semnan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Deputy of Research and Technology, Semnan University of Medical Sciences
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
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Ziaeddin Safavi-Farokhi
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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