

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Aug 2026

Comparison of ultrasound guided local injections of dextrose and corticosteroid efficacy on pain and daily activity of patients with chronic plantar fasciitis

Protocol summary

Summary

In this study we compare effects of dextrose and corticosteroid on pain and daily activity of patients with plantar fasciitis. Patients suffering from heel pain with a VAS(Visual Analogue Scale) more than 4 for at least two months whose history, physical exam and sonography confirm plantar fasciitis are included. A history of direct trauma; systemic inflammatory or soft tissue diseases; disk herniation with S1 radiculopathy; gout; diabetes mellitus; surgery or injection in fascia since 6 months ago, existence of cyst/mass in pain site; coincidence of paresthesia or numbness; coagulopathy; pregnancy; hypersensitivity to corticosteroids; infection of injection site, posterior heel pain and any treatment for the condition since 4 weeks ago are exclusion criterias. Patients will be randomized with a simple randomization method in two intervention groups. One group will be injected with 2 cc of dextrose 20% and the other with a combination of 1 cc of methylprednisolone 40 mg and 1 cc of saline 0.9%, both in plantar fascia under an ultrasound guide. Anesthesia will be induced by 1 cc of lidocain 1% and a 22 gauged needle. A resident of physical medicine and rehabilitation who is blind toward the injected drugs will evaluate the patients at the base time, 2 weeks and 8 weeks following the injection. The evaluation will be done for efficacy on pain by VAS and on daily activity by FAAM questionnaire. Thickness of plantar fascia will be determined by sonography. Finally the collected data from two groups will be compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015041321744N1**

Registration date: **2015-06-01, 1394/03/11**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2015-06-01, 1394/03/11

Registrant information

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Name of organization / entity

Iran university of medical science

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of Iran University Of Medical Science, Dr Eftekhar Ardebili

Expected recruitment start date

2015-06-05, 1394/03/15

Expected recruitment end date

2015-10-07, 1394/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of ultrasound guided local injections of dextrose and corticosteroid efficacy on pain and daily activity of patients with chronic plantar fasciitis

Public title

Effects of dextrose and corticostroid on plantar fasciitis treatment	105/2741/93/3
Purpose Treatment	Health conditions studied
Inclusion/Exclusion criteria Inclusion: a history of plantar fasciitis; heel pain for more than 2 months with a VAS (visual Analogue Scale) more than 4; fascia hypoechogenicity and thickness more than 4 mm in sonography exclusion: a history of direct trauma; positive tinnel sign; a history of systemic inflammatory or soft tissue diseases; disk herniation with S1 radiculopathy; a history of gout; diabetes melitus; a history of surgery or injection in fascia since 6 months ago, existence of cyst/mass in pain site; coincidence of paresthesia or numbness; coagulopathy; pregnancy; hypersensitivity to corticosteroids; infection of injection site, posterior heel pain; any treatment for the condition since 4 weeks ago; patients who receive physiotherapy, splint, ionophoresis and shockwave during 2 months after injection	1 Description of health condition studied Plantar fasciitis ICD-10 code XIII ICD-10 code description Diseases of the musculoskeletal system and connective tissue
Age From 18 years old to 75 years old	Primary outcomes
Gender Both	1 Description Pain Timepoint Before injection, 2 weeks and 8 weeks after injection Method of measurement Visual Analog Scale (VAS)
Phase 2-3	2 Description Daily living and sport activity Timepoint before injection, 2 weeks and 8 weeks after injection Method of measurement FAAM questionnaire
Groups that have been masked No information	Secondary outcomes
Sample size Target sample size: 40	1 Description Thickness of plantar fascia Timepoint before injection, 2 weeks and 8 weeks after injection Method of measurement sonography
Randomization (investigator's opinion) Randomized	Intervention groups
Randomization description	1 Description First intervention group: injection of a combination of 1 cc methylprednisolone 40 mg and 1 cc saline 0.9% Category Treatment - Drugs
Blinding (investigator's opinion) Triple blinded	2 Description Second intervention group: injection of 2 cc of dextrose 20% Category
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 Iran University Of Medical Science Street address Iran University Of Medical Science, Hemmat Freeway, next to Milad Hospital City Tehran Postal code Approval date 2014-09-03, 1393/06/12 Ethics committee reference number	

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Firoozgar Hospital

Full name of responsible person

Amin Arbabi

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Valiasr square, Behafarin Avenue, Firoozgar hospita,
Physical medicine and rehabilitation wardI

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Iran University Of
Medical Science

Full name of responsible person

Dr Eftekhar Ardebili

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Next to Milad hospital, Hemmat Autobahn

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for research of Iran University Of Medical
Science

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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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