Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison between Pneumatic Radial Shock Wave and Electromagnetic Radial Shock Wave on Pain and Disability Index in Patients with Plantar Fasciitis.

Protocol summary

Study aim

Comparison between Pneumatic Radial Shock Wave and Electromagnetic Radial Shock Wave on Pain and Disability Index in Patients with Plantar Fasciitis.

Design

A Quasi-experimental trials with 2 treatment groups with sample size including 36 patients and single blind. Patients through Random Table Number are divided by 2 groups. In the studied patients, special group sequentially enter in the dark envelopes. The envelopes is opened by researcher and patient is not aware of the treatment groups.

Settings and conduct

A study is conducted at the Khatam Al Anbia Physiotherapy Clinic.The patients with having inclusion criteria after referring to the clinic, randomly divided into Pneumatic Radial Shock Wave and Electromagnetic Radial Shock Wave. After completing the consent form and the initial assessment, the patients based on their group, will receive 5 treatment sessions. The Participants are blind to the treatment groups but researcher that is an evaluator is not blind to the treatment groups.

Participants/Inclusion and exclusion criteria

Inclusion criteria: women and men 23 to 61 years with Plantar Fasciitis with symptons at least 3 months; Exclusion criteria: bilateral Plantar Fasciitis, Arthritis: Ankylosing Spondylitis, Diabetes, Cardiac Arrhythmia or Pacemake, Vascular Disease, History of trauma or foot fracture, Infection or open wound on the heel, Radiculopathy, Neuropathy, Tarsal Tunnel Syndrome, Anticoagulant Therapy, History of fascia surgery, Malignancy, Pregnancy, History of Physiotherapy at 3 months ago, History of injection at 6 months ago, History of treatment with Shock Wave, Foot or Ankle, Athletes

Intervention groups

For the patients in the first group, 5 sessions treatments with Pneumatic Radial Shock Wave and in the second group, 5 sessions treatments with Electromagnetic Radial Shock Wave are used.

Main outcome variables

Pain; Disability Index

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180924041111N1**
Registration date: **2018-10-21, 1397/07/29**
Registration timing: **registered_while_recruiting**

Last update: **2018-10-21, 1397/07/29**
Update count: **0**

Registration date

2018-10-21, 1397/07/29

Registrant information

Name

Elham Rahbaran

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 31 3224 3803

Email address

rahbaran_elhamm@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-12-06, 1396/09/15

Expected recruitment end date

2018-12-06, 1397/09/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison between Pneumatic Radial Shock Wave and Electromagnetic Radial Shock Wave on Pain and Disability Index in Patients with Plantar Fasciitis.

Public title

Comparison between Pneumatic Radial Shock Wave and Electromagnetic Radial Shock Wave on Pain and Disability in Patients with Plantar Fasciitis.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Women and Men 23 to 61years with Plantar Fasciitis Symptoms for at least 3 months

Exclusion criteria:

Bilateral Plantar Fasciitis Arthritis: Ankylosing Spondylitis Diabetes Cardiac Arrhythmia or Pacemaker Vascular Disease Infection or Open Wound on the heel Radiculopathy, Neuropathy and Tarsal Tunnel Syndrome Anticoagulant Therapy Pregnancy History of recent Fascia Surgery History of Physiotherapy at 3 months ago Injection at 6 months ago History of treatment with Shock Wave Malignancy Athletes History of recent trauma or Foot fracture foot or ankle instability

Age

From **23 years** old to **61 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple Randomization through Random Table Numbers

Blinding (investigator's opinion)

Single blinded

Blinding description

After referring to the clinic, a person receives a consent form containing all information related to the purpose and benefits of study and all exclusion and inclusion criteria, which gives patient the right to participate in the study and assures her of retaining all her personal information and give her the right to leave the study if she wishes.The cause of single blindness of the study is that the participants are unaware of the treatment groups but the researcher that is an evaluator, is aware of the treatment groups.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Room 209, 2nd Floor, Building number 4, Isfahan University of Medical Sciences, Hezarjerib Ave

City

Isfahan

Province

Isfehan

Postal code

81746-73461

Approval date

2017-07-25, 1396/05/03

Ethics committee reference number

IR.MUI.REC.1396.3.307

Health conditions studied

1

Description of health condition studied

Plantar Fasciitis

ICD-10 code

m72.2

ICD-10 code description

Plantar fascial fibromatosis

Primary outcomes

1

Description

Pain

Timepoint

Before and 1and 5 weeks after the intervention

Method of measurement

Visual Analogue Scale

2

Description

Disability Index

Timepoint

Before and 1and 5 weeks after the intervention

Method of measurement

foot and ankle ability measure questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1:for the one group, 5 sessions treatments with Pneumatic Radial Shock Wave, 360G, Novin are used.The treatment protocol including:1500 shocks, 1.5 bar at the first session and 2000 shocks, 2 bar at the second session and 2500 shocks, 3bar at the 3 last session
Category
Rehabilitation

2

Description
Intervention group 2: for the second group, 5 sessions treatments with electromagnetic Radial Shock Wave enPULS PRO, Zimmer are used.The treatment protocol including:1500 shocks, 1.5 bar at the first session and 2000 shocks, 2 bar at the second session and 2500 shocks, 3bar at the 3 last session
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
khatam Al Anbia
Full name of responsible person
Navid Taheri
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1st floor, 2nd Jahan Soltan Bldg, Motasham Kashani St, Hakim Nezami Ave
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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research@mui.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Esfahan University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
Navid Taheri
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available