Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative effects of foam roller and J-stroke myofascial release in patients with plantar fasciitis

Protocol summary

Study aim
To compare the effects of foam roller and J-stroke myofascial release on pain intensity, pain threshold, range of motion and functional disability in patients with plantar fasciitis.

Design
Randomized clinical trial, single blinded study, two parallel groups with 44 patients from Sheikh Zayed hospital Rahim yar khan

Settings and conduct
The trial will be conducted at Sheikh Zayed Hospital Rahim Yar Khan. The participant will be blinded by concealment of the technique that will be used on the participant.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Both male and female, Patients age between 25-55 years with heel pain, Pre-diagnosed and referred patients of plantar fasciitis by orthopedic surgeon, Complain of plantar fasciitis since last 6 weeks, Pain in the heel on the first step in the morning, Heel pain felt maximally over plantar aspect of heel, Patients with unilateral plantar fasciitis Exclusion criteria: Inflammatory and degenerative joint disorder, Impaired blood circulation, Ankle and foot bone fracture, Patients with skin diseases i.e., Dermatitis or any infective disorder in which ultrasound is contraindicated, Metal implants and post-surgical, Altered sensation in lower extremity, Patients with history of corticosteroid injection in heel in last 3 months, Malignancy, Referred pain due to neurological disorders

Intervention groups
Group A: Foam roller will be given to group A along with the conventional treatment. Group B: J-stroke myofascial release techniques will be given to group B along with the conventional treatment.

Main outcome variables
Pain Intensity, Pain Pressure Threshold, Ankle dorsiflexion ROM, Functional disability

General information

Reason for update
It was not possible for us to blind the patients in the study so it was changed to blinding the outcome assessor of the study as it will reduce the risk the of biasness in the study and will give more relevant and unbiased results.

Acronym
ceofrajsmripwpf

IRCT registration information
IRCT registration number: **IRCT20190717044238N9**
Registration date: **2023-11-09, 1402/08/18**
Registration timing: **registered_while_recruiting**

Last update: **2025-03-19, 1403/12/29**
Update count: **1**

Registration date
2023-11-09, 1402/08/18

Registrant information

Name
Fareeha Amjad

Name of organization / entity
The University of Lahore

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Pakistan

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+92 42 99200600

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fari_fairy22@yahoo.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-08-01, 1402/05/10

Expected recruitment end date
2023-12-30, 1402/10/09

Actual recruitment start date

2023-08-01, 1402/05/10

Actual recruitment end date

2023-12-30, 1402/10/09

Trial completion date

2024-02-27, 1402/12/08

Scientific title

Comparative effects of foam roller and J-stroke myofascial release in patients with plantar fasciitis

Public title

Comparative effects of foam roller and J-stroke myofascial release in patients with plantar fasciitis

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

Both male and female Patients age between 25-55 years with heel pain Pre-diagnosed and referred patients of plantar fasciitis by orthopedic surgeon Complain of plantar fasciitis since last 6 weeks Pain in the heel on the first step in the morning Heel pain felt maximally over plantar aspect of heel Patients with unilateral plantar fasciitis

Exclusion criteria:

Inflammatory and degenerative joint disorder Impaired blood circulation Ankle and foot bone fracture Patients with skin diseases i.e., Dermatitis or any infective disorder in which ultrasound is contraindicated Metal implants and post-surgical Altered sensation in lower extremity Patients with history of corticosteroid injection in heel in last 3 months Malignancy Referred pain due to neurological disorders

Age

From **25 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **44**

Actual sample size reached: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization will be done by use of sealed envelops which involves assigning participants to different groups by randomly selecting an envelope that contains their group assignment. This will ensure reduce biasness in allocation of interventions. Simple randomization method is used to allocate participants to different groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

In the trial the outcome assessor is blinded by not knowing or being unaware which intervention patients are receiving , but the researcher know. This trial will be single blinded.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research and ethics Commitee Riphah College of Rehabilitation and Allied Health Sciences

Street address

Riphah International University Gulberg Campus

City

Lahore

Postal code

54000

Approval date

2023-08-03, 1402/05/12

Ethics committee reference number

REC/RCR & AHS/23/0140

Health conditions studied

1

Description of health condition studied

Plantar fasciitis

ICD-10 code

M72.2

ICD-10 code description

Myofascial release, plantar fasciitis, pain threshold, trigger points, visual analogue scale

Primary outcomes

1

Description

Pain Intensity

Timepoint

Baseline and 4th week

Method of measurement

Visual Analogue Scale (VAS)

2

Description

Pain Pressure Threshold

Timepoint

Baseline and 4th week

Method of measurement

Pressure Algometry

3

Description
Ankle Dorsiflexion Range of Motion (ROM)
Timepoint
Baseline and 4th week
Method of measurement
Weight Bearing Lunge Test for Ankle Dorsiflexion ROM

4

Description
Functional Disability
Timepoint
Baseline and 4th week
Method of measurement
Foot and Ankle disability Index (FADI)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Group A: Foam roller will be given to group A along with the conventional treatment. This group patient will be treated with Foam roller for pain beneath heel for 45 seconds with 15 seconds rest with 5 repetitions, 3 times per week for 4 weeks. Guidelines for using foam roller: 1. Choose a medium-density foam roller with a smooth surface.2. Warm up your foot and calf muscles before starting.3. Sit down and position the foam roller under your foot.4. Gradually put your body weight on the foam roller.5. Roll back and forth along the foot to target different areas.6. Adjust the angle of your foot to target different areas.7. Stretch your calf muscles and plantar fascia after foam rolling.
Category
Rehabilitation

2

Description
Intervention group: Group B: J-stroke myofascial release techniques will be given to group B along with the conventional treatment. These patients will be treated with J-stroke myofascial release beneath the heel for 10 seconds over 5 to 12 repetitions, 3 times per week for 4 weeks. Technique of J-stroke myofascial release:1. Position the patient comfortably with their foot exposed.2. Apply a small amount of lubricant to the area being treated.3. Place the thumb or fingertips on the inner part of the plantar fascia, near the heel.4. Apply gentle and sustained pressure while gliding the thumb or fingertips along the inner side of the plantar fascia, moving towards the ball of the foot.5. Perform the stroke in a J-shaped or inverted L-shaped pattern.6. Repeat the stroke multiple times focusing on areas of tenderness or tension.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Sheikh Zayed Hospital Rahim Yar Khan
Full name of responsible person
Muneeba Najeeb
Street address
Sheikh Zayed Public School Canal Road Rahim Yar Khan
City
Rahim Yar Khan
Postal code
64200
Phone
+92 306 5367838
Email
muneeba.najeeb2015@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Riphah International University Lahore
Full name of responsible person
Muneeba Najeeb
Street address
Riphah International University Lahore Gulberg green campus
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Phone
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Email
muneeba.najeeb2015@gmail.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Riphah International University Lahore
Proportion provided by this source
100
Public or private sector
Private
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
Riphah International University Lahore

Full name of responsible person
Muneeba Najeeb

Position
MS student

Latest degree
Master

Other areas of specialty/work
Physiotherapy

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Person responsible for scientific inquiries

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Position
Associate Professor

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Person responsible for updating data

Contact

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Position
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Latest degree
Master

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
confidentiality of participants

Study Protocol
Yes - There is a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Yes - There is a plan to make this available

Analytic Code
Not applicable

Data Dictionary
No - There is not a plan to make this available

Title and more details about the data/document
Consent form in its original format with no information about any participant study protocol -how the intervention was given to both groups

When the data will become available and for how long
Data would be available after the completion of the research.

To whom data/document is available
People working in an academic and clinical setting can have access to the above mentioned information/documents

Under which criteria data/document could be used
Data can be used for Research Purpose

From where data/document is obtainable
Data can be asked for at the following email address: Muneeba.najeeb2015@gmail.com

What processes are involved for a request to access data/document
One can ask for data at the given email address and it would be provided after knowing the general implications of sharing that particular data

Comments