

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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

ceofrajsmripwfp

##### 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

###### Country

Pakistan

###### Phone

+92 42 99200600

###### Email address

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 envelopes 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 Committee 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

##### **City**

Lahore

##### **Postal code**

54000

##### **Phone**

+92 306 5367838

##### **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

**Street address**

Ittefaq Street 218 /8 Rehmanpura ferozpur road  
lahore

**City**

Lahore

**Province**

Punjab

**Postal code**

54000

**Phone**

+92 306 5367838

**Email**

muneeba.najeeb2015@gmail.com

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

Riphah International University Lahore

**Full name of responsible person**

Fareeha Amjad

**Position**

Associate Professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Physiotherapy

**Street address**

Riphah International University Lahore Gulberg green  
Campus

**City**

Lahore

**Province**

Punjab

**Postal code**

54000

**Phone**

+92 334 3372779

**Email**

fari\_fairy22@gmail.com

## Person responsible for updating data

### Contact

**Name of organization / entity**

Riphah International University Lahore

**Full name of responsible person**

Muneeba Najeeb

**Position**

Student

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

Riphah International University Lahore

**City**

Lahore

**Province**

Punjab

**Postal code**

54000

**Phone**

092 3065367838

**Email**

muneeba.najeeb2015@gmail.com

## 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**