Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparing the Effects of Integrated Neuromuscular Inhibition Technique versus Percussive Massage along with Stretching in Plantar Fasciitis: A Randomized Clinical Trial

Protocol summary

Study aim
Assessing the comparative effect of integrated neuromuscular inhibition technique and percussive massage with stretching on pain, function and balance of patients with plantar fasciitis.

Design
Randomized clinical trial

Settings and conduct
THQ hospital Jaranwala and Khidmat e Insani hospital Jaranwala

Participants/Inclusion and exclusion criteria
Inclusion: Age of 25 to 40 Y, Heel pain untreated for less than 6 months, Subjects with plantar fasciitis diagnosed by Windlass test, Pain on medial tubercle of calcaneus.
Exclusion: Recent lower limb fractures and arthrosis, congenital deformity of foot, ankle sprain, calcaneal spurs on medial side of calcaneum, fibromyalgia syndrome, Rheumatoid arthritis, pregnant and tarsal tunnel syndrome

Intervention groups
Group A will receive Percussive Massage with Stretching
Group B will receive Integrated Neuromuscular Inhibition Technique

Main outcome variables
Pain (Numeric Pain Rate Scale) Lower extremity dynamic balance (Star Excursion Balance Test (SEBT)) Lower limb disability (Foot and Ankle Disability Index)

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20220930056062N8**
Registration date: **2026-06-08, 1405/03/18**
Registration timing: **prospective**
Last update: **2026-06-08, 1405/03/18**
Update count: **0**

Registration date
2026-06-08, 1405/03/18

Registrant information

Name
Kaiynat Shafique

Name of organization / entity
The University of Faisalabad

Country
Pakistan

Phone
+92 334 6925051

Email address
kaiynatshafique@yahoo.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2026-06-15, 1405/03/25

Expected recruitment end date
2026-08-15, 1405/05/24

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparing the Effects of Integrated Neuromuscular Inhibition Technique versus Percussive Massage along with Stretching in Plantar Fasciitis: A Randomized Clinical Trial

Public title
Comparing the Effects of Integrated

NeuromuscularInhibition Technique versus Percussive Massage alongwith Stretching in Plantar Fasciitis: A RandomizedClinical Trial

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Heel pain untreated for less than 6 months as a result of irritated plantar fasci withtrigger point in calf muscles. Subjects with plantar fasciitis diagnosed by Windlass test and those with positive testwere included Those who have a history of experiencing heel pain when taking their first few steps inthe morning or after prolonged non-weight bearing activities Pain on medial tubercle of calcaneus Subjects ranging between the age of 25 to 40 y

Exclusion criteria:
History of recent foot and ankle and lower limb fractures Arthrosis of the ankle, knee, and hip Patients with referred pain like sciatica or any other neurological cause will also beexcluded Patients with any congenital deformity of foot Patient with any degree of ankle sprain Patient with calcaneal spurs on medial side of calcaneum Patients with fibromyalgia syndrome or Rheumatoid arthritis Patients who were pregnant Patients with tarsal tunnel syndrome

Age
From **25 years** old to **40 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **34**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomization through lottery method

Blinding (investigator's opinion)
Single blinded

Blinding description
Outcome assessor will be blind in this clinical tria

Placebo
Not used

Assignment
Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
The University of Faisalabad

Street address
west canal, Faisalabad

City
Faisalabad

Postal code
38000

Approval date
2025-12-20, 1404/09/29

Ethics committee reference number
TUF/EIRB/147/25

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
Foot Pain

Timepoint
pain will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

Method of measurement
Numeric Pain Rate Scale

2

Description
Foot and and ankle disability

Timepoint
Foot and and ankle disability will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

Method of measurement
Foot and Ankle disability index

3

Description
Dynamic balance

Timepoint
Dynamic balance will be measured three times. Before the start of 1st session, after 2 weeks and third time after 4 weeks

Method of measurement
Star Excursion Balance Test

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: percussive massage with massage gun and stretching.
Category
Treatment - Other

2

Description
Intervention group: integrated neuromuscular inhibition training.
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
THQ hospital Jaranwala
Full name of responsible person
Kaiynat Shafique
Street address
Faisalabad
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Faisalabad
Full name of responsible person
Kaiynat Shafique
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
It was a self funded study
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
Other

Person responsible for general inquiries

Contact
Name of organization / entity
The University of Faisalabad
Full name of responsible person
Dr. Kaiynat Shafique; PT
Position
Lecturer
Latest degree
Master
Other areas of specialty/work
Physiotherapy
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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
No - There is not 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