Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effects of Gastrocnemius recession versus physical therapy in chronic plantar fasciitis

Protocol summary

Study aim
The study aims to evaluate the effects of gastrocnemius recession versus physiotherapy in chronic plantar fasciitis.

Design
Parallel, 40 Sample size, Randomized Controlled Trial, single-blinded

Settings and conduct
The trial will be conducted in the Physiotherapy Department of Punjab Social Security Health Management Company Hospital. Assessor will be completely blind to outcomes.

Participants/Inclusion and exclusion criteria
Inclusion Criteria: Age 30-50 years individuals, Male and female both, Heel pain lasting > 3 months, Pain in the morning, Tenderness over medial plantar fascia insertion, Positive Silfverskiöld test Exclusion Criteria: Degenerative arthritis of the hindfoot joints, Systemic joint disease, Previous injury or surgery to the foot or ankle, Inoperable due to comorbidity

Intervention groups
Group A. PHYSICAL THERAPY PHONOPHORESIS, STRETCHING, and MANUAL THERAPY were done on alternate days for 4 weeks. The calf muscle and/or plantar fascia–specific stretching will be used to provide pain relief and improvement in calf muscle flexibility 3 times a day (3 minutes) stretching time, for three months in-home plan. Group B. GASTROCNEMIUS RECESSION Patients randomized to surgery will be operated on with a proximal medial gastrocnemius recession (PMGR) as described by Barouk. Patients were instructed to continue the stretching exercises and fully weight-bear from the first postoperative day. If needed, the patients were allowed to use crutches during the first 2 weeks after surgery.

Main outcome variables
numeric rating scale, Foot and Ankle Ability Measure (FAAM)Activities of Daily Living Subscale, ankle hindfoot scale, The Short Form–36 (SF-36)

General information

Reason for update

Acronym
RCT

IRCT registration information
IRCT registration number: **IRCT20210704051785N3**
Registration date: **2023-08-05, 1402/05/14**
Registration timing: **retrospective**

Last update: **2023-08-05, 1402/05/14**
Update count: **0**

Registration date
2023-08-05, 1402/05/14

Registrant information

Name
Sarwat Anees
Name of organization / entity
Sharif medical and dental college
Country
Pakistan
Phone
+92 42 35397101
Email address
sarwatasifmehmood@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-07-01, 1402/04/10

Expected recruitment end date
2023-07-01, 1402/04/10

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effects of Gastrocnemius recession versus physical therapy in chronic plantar fasciitis

Public title
surgery versus physiotherapy which treatment is better for heel pain.

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Heel pain lasting > 3 months Pain in morning(morning stiffness) Tenderness over medial plantar fascia insertion Positive Silfverskiöld test not recieved physiotherapy session

Exclusion criteria:
Degenerative arthritis of the hindfoot joints Systemic joint disease Previous injury or surgery to the foot or ankle Inoperable due to comorbidity

Age
From **30 years** old to **50 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Investigator

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
The sealed envelope method will be used for random allocation. 40 sealed envelopes (20 for Group A and 20 for Group B) will be prepared. 20 envelopes will contain the letter A, and 20 will include the letter B on a card. The patient will be asked to choose one envelope. Treatment will be given according to treatment group (Group A: control, Group B: experiment).

Blinding (investigator's opinion)
Single blinded

Blinding description
Senior physiotherapists will assess the patient before and after treatment. Senior physiotherapist/assessor will be blinded entirely about patient allocation group (control/intervention).

Placebo
Not used

Assignment
Parallel

Other design features
no

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
the superior university ethics committee

Street address
raiwind road, lahore

City
lahore

Postal code
55150

Approval date
2023-06-10, 1402/03/20

Ethics committee reference number
Ref:03-PEAC-1-23

Health conditions studied

1

Description of health condition studied
Plantar fasciitis, heel pain

ICD-10 code
M72.2

ICD-10 code description
Plantar fascial fibromatosis

Primary outcomes

1

Description
pain intensity

Timepoint
numeric pain rating scale will be measured at basline and at 3 months and at 6 months

Method of measurement
measured by numeric pain rating scale

2

Description
foot and ankle function involving a range of daily activities

Timepoint
foot and ankle function involving a range of daily activities will be assessed at baseline and at 3 months and at 6 months.

Method of measurement
foot and ankle function involving a range of daily activities(FAAM-ADL) scale used

3

Description
the american orthopedic foot and ankle society ANKLE-HINDFOOT scale

Timepoint
will be assessed at baseline and at 3 months and at 6 months.

Method of measurement
AOFAS ankle hindfoot scale used

Secondary outcomes

1

Description
health related quality of life
Timepoint
will be assessed at baseline and at 3 months and at 6 months.
Method of measurement
the short form SF-36 used.

Intervention groups

1

Description
Intervention group: Phonophoresis with ketoprofen gel will reduce pain on alternate days for 4 weeks. Stretching Calf muscle and plantar fascia–specific stretching will be used to relieve pain and improve calf muscle flexibility 3 times a day (3 minutes) stretching time, for three months in the home plan. Manual therapy procedures include talocrural joint posterior glide, subtalar joint lateral glide, anterior and posterior glides of the first tarsometatarsal joint, and subtalar joint distraction manipulation, done on alternate days for 4 weeks
Category
Treatment - Other

2

Description
Intervention group: Patients randomized to surgery will be operated with a proximal medial gastrocnemius recession(PMGR) as described by Barouk(17)(Figure 1). No additional procedures will be performed. The operation will be performed with the patients in a prone position under local anesthetic or general anesthesia. A 3-cm transverse skin incision was made in the popliteal fossa, the fascia was opened, and the medial gastrocnemius with its tendon was located. The tendon was then cut while lifting the gastrocnemius with clamps, and care was taken to cut only the white tendon while sparing the underlying muscle. While performing a dorsiflexion movement of the ankle, careful palpation of the muscle was done to ensure that all tendon strands were cut completely. The incision was closed in layers, and only soft dressings were applied. Patients were instructed to continue the stretching exercises and fully weight-bear from the first postoperative day. If needed, the patients were allowed to use crutches during the first 2 weeks after surgery. Sutures were removed 2 weeks after surgery.Calf muscle and plantar fascia–specific stretching will be used to relieve pain and improve calf muscle flexibility 3 times a day (3 minutes) stretching time, for three months in the home plan
Category
Treatment - Surgery

Recruitment centers

1

Recruitment center
Name of recruitment center
Punjab Social Security Health Management Company Hospital, Raiwind, Lahore
Full name of responsible person
Sarwat Anees
Street address
8km manga road, raiwind
City
lahore
Postal code
55150
Phone
+92 303 4846498
Email
psshmc@0rg.pk
Web page address

2

Recruitment center
Name of recruitment center
the sharif city polyclinic raiwind
Full name of responsible person
Sarwat Anees
Street address
Sharif polyclinic, near Muzammil Mart, railway road, raiwind
City
lahore
Postal code
55150
Phone
+92 303 4846498
Fax
+92 303 4846498
Email
sharifmedicalcity@org.edu.pk

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
sharif medical and dental college
Full name of responsible person
Sarwat Anees
Street address
Sharif polyclinic, near doce bakers, railway road, raiwind
City
raiwind
Postal code
55150
Phone
+92 303 4846498
Fax

+92 42 37860122

Email

sarwatasifmehmood@gmail.com

Grant name

Grant code / Reference number

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

No

Title of funding source

funding

Proportion provided by this source

1

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

Punjab Social Security Health Management Company Hospital

Full name of responsible person

Sarwat Anees

Position

Physiotherapist

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

Sharif Polyclinic, near Doce Bakers, Railway Road, Raiwind

City

Lahore

Province

Punjab

Postal code

55150

Phone

+92 303 4846498

Email

sarwatasifmehmood@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Sharif medical and dental college

Full name of responsible person

Sarwat Anees

Position

Assistant professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

Sharif polyclinic, near Muzammil Mart, railway road, raiwind

City

Raiwind

Province

Punjab

Postal code

55150

Phone

+92 303 4846498

Fax

Email

sarwatasifmehmood@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Sharif medical and dental college

Full name of responsible person

Sarwat Anees

Position

Assistant professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

Sharif polyclinic, near doce bakers, railway road raiwind

City

Lahore

Province

Punjab

Postal code

55150

Phone

+92 42 35397101

Fax

Email

sarwatasifmehmood@gmail.com

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