

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 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 Silfvskiöld 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 RECESSON 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 baseline 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

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lahore

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+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

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Fax

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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

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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

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

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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

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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

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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