

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

THE STUDY COMPARING THE EFFECTIVENESS OF EXERCISES ALONG WITH MAITLAND NAVICULAR MOBILIZATION VERSUS EXERCISES ALONE IN PATIENTS WITH PES PLANUS: A RANDOMIZED CONTROL TRAIL

Protocol summary

Study aim

The purpose of this study was to find the comparative impact of exercises with navicular mobilization versus exercise alone in patients with flat foot. In flat foot, hence the foot is pronated so the mobilization has to be given in order to improve normal biomechanics of foot or to elevate the medial arch. There is paucity of literature on mid foot mobilization in patients having flat foot. So, a comparative effect of these treatments on the navicular height and foot posture index in patients with flat foot was done to find out which one was superior to the other.

Design

Two arm parallel group randomised trial

Settings and conduct

Rehman Medical Institute, Peshawar However, assessor, who will assess pre and post measurements, will be blinded.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: 1. Subjects aged between 18 to 30 years 2. Both males and females 3. Unilateral or bilateral involvement 4. Subjects having flexible flat feet with navicular drop test positive Exclusion Criteria: 1. History of fractures in the lower limb 2. Skin infections and wounds on the foot 4. Any neurological deficit 5. Peripheral vascular diseases.

Intervention groups

Control Group (Group A): Resistive exercises using TheraBand of 12 repetitions and 3 sets. Resistive exercises will contain plantarflexion, inversion, flexion of big toe and abduction of big toe Experimental Group (Group B): Group B will be given talonavicular mobilization along with exercises. In talonavicular mobilization, a dorsal glide of 3 sets and 20 repetitions will be given to the navicular while stabilizing the talar neck. Resistive exercises using TheraBand will be given with 12 repetitions of 3 sets.

Main outcome variables

Outcome measures will be used on baseline, 1st assessment (after 3 weeks) and 2nd assessment (after 6 weeks) using Foot Posture Index (FPI) and navicular drop test

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220523054969N1**

Registration date: **2022-05-24, 1401/03/03**

Registration timing: **prospective**

Last update: **2022-05-24, 1401/03/03**

Update count: **0**

Registration date

2022-05-24, 1401/03/03

Registrant information

Name

Aqsa Wisal

Name of organization / entity

Rehman medical institute, Peshawar

Country

Pakistan

Phone

+92 91 5838000

Email address

aqsa.wisal@rmi.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-06-23, 1401/04/02

Expected recruitment end date

2022-09-23, 1401/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

THE STUDY COMPARING THE EFFECTIVENESS OF EXERCISES ALONG WITH MAITLAND NAVICULAR MOBILIZATION VERSUS EXERCISES ALONE IN PATIENTS WITH PES PLANUS: A RANDOMIZED CONTROL TRAIL

Public title

THE STUDY COMPARING THE EFFECTIVENESS OF EXERCISES ALONG WITH MAITLAND NAVICULAR MOBILIZATION VERSUS EXERCISES ALONE IN PATIENTS WITH PES PLANUS: A RANDOMIZED CONTROL TRAIL

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Subjects aged between 18 to 30 years Both males and females Unilateral or bilateral involvement Subjects having flexible flat feet with navicular drop test positive.

Exclusion criteria:

History of fractures in the lower limb Skin infections and wounds on the foot Any neurological deficit Peripheral vascular diseases.

Age

From **18 years** old to **30 years** old

Gender

Both

Phase

3

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **32**

Randomization (investigator's opinion)

Randomized

Randomization description

Sealed envelopes After participants are selected, they will be randomly allocated to control group and experimental group using lottery method in which they will be asked to select a piece of paper from a box. The piece of paper will be marked with initial of the groups (such as A or B) and then the participants will be allocated to the group initial that was on paper.

Blinding (investigator's opinion)

Single blinded

Blinding description

Due to nature of study, it will not be feasible to blind researcher/therapist and subjects. However, assessor, who will assess pre and post measurements, will be blinded.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

AS&RB

Street address

F1 Phase-6 Rd, Phase 5 Hayatabad

City

PESHAWAR

Postal code

25100

Approval date

2022-05-24, 1401/03/03

Ethics committee reference number

Not issued yet

Health conditions studied**1****Description of health condition studied**

Flat Foot

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Navicular Height

Timepoint

Outcome measures will be used on baseline, 1st assessment (after 3 weeks) and 2nd assessment (after 6 weeks)

Method of measurement

Navicular drop test

Secondary outcomes**1****Description**

Flat Foot

Timepoint

Outcome measures will be used on baseline, 1st assessment (after 3 weeks) and 2nd assessment (after 6 weeks)

Method of measurement

Foot posture index

Intervention groups

1

Description

Intervention group: talonavicular mobilization along with exercises. In talonavicular mobilization, a dorsal glide of 3 sets and 20 repetitions will be given to the navicular while stabilizing the talar neck. Resistive exercises using TheraBand will be given with 12 repetitions of 3 sets. Resistive exercises will contain plantarflexion, inversion, flexion of big toe and abduction of big toe.

Category

Rehabilitation

2

Description

Control group: Resistive exercises using TheraBand of 12 repetitions and 3 sets. Resistive exercises will contain plantarflexion, inversion, flexion of big toe and abduction of big toe will be given

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehman Medical Institute, Peshawar

Full name of responsible person

Aqsa Wisal

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Khyber Medical Institute, Peshawar

Full name of responsible person

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Khyber Medical Institute, Peshawar

Proportion provided by this source

100

Public or private sector

Public

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

Khyber Medical University, Peshawar

Full name of responsible person

RIDA SHABBIR

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)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available