Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 foo 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

Street address
5/B-2 Phase 5

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
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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