

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Sep 2026

Comparison of the effect of ankle exercises with global exercises(ankle and hip)on the navicular drop and postural control of the foot in subjects with flexible flat foot

Protocol summary

Study aim

Determining and comparing the effect of ankle exercises with global exercises (ankle and hip) on navicular drop and postural control in people with flexible flat feet

Design

A clinical trial study, with simple and accessible sampling, without blinding will be performed on 30 people with flexible flat foot.

Settings and conduct

This randomized clinical trial of Zahedan University of Medical Sciences 1400 in Mashhad University of Medical Sciences will be performed without blinding through simple and available sampling

Participants/Inclusion and exclusion criteria

Participants are in the age group of 19 to 30 years, positive navicular drop test , no history of fractures and dislocations in the lower extremities, no history of rheumatoid, neurological, respiratory disorders, cardiovascular disorders, No pregnancy, no history of diabetes , no deformity in the lower extremities, approved by an orthopedist

Intervention groups

Ankle exercises group and Global exercises group (ankle and hip)

Main outcome variables

Determining and comparing the amount of navicular drop and postural control variables (mean center of pressure level, anterior-posterior deviations, internal-external deviations and mean velocity of pressure center fluctuations) in the group of ankle exercises and global exercises (ankle and hip)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20090210001675N16**

Registration date: **2021-07-20, 1400/04/29**

Registration timing: **prospective**

Last update: **2021-07-20, 1400/04/29**

Update count: **0**

Registration date

2021-07-20, 1400/04/29

Registrant information

Name

Asghar Akbari

Name of organization / entity

Zahedan University of Medical Sciences

Country

Iran (Islamic Republic of)

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+98 54 1322 8445

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akbaria@zdmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-08-20, 1400/05/29

Expected recruitment end date

2021-12-05, 1400/09/14

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of ankle exercises with global exercises(ankle and hip)on the navicular drop and

postural control of the foot in subjects with flexible flat foot

Public title
Comparison of the effect of ankle exercises with global exercises(ankle and hip)in subjects with flexible flat foot

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
People in the age group of 19 to 30 years Positive navicular drop test No history of fracture, dislocation of the lower limb No history of lower limb surgery No history of rheumatoid and neurological diseases No history of diabetes No pregnancy No respiratory disorders Lack of deformity in the lower extremities No cardiovascular disorders Approved by an orthopedic specialist
Exclusion criteria:
People with flexible flat foot who have been absent for more than three consecutive treatment sessions
Receiving or performing other treatments while studying

Age
From **19 years** old to **30 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Individuals will be randomly divided into two groups by lottery

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Zahedan University of Medical Sciences

Street address

Dr. Hesabi Square, Janat Blvd., Zahedan University of Medical Sciences

City

Zahedan
Province
Sistan-va-Balouchestan
Postal code
9816843463

Approval date

2021-06-20, 1400/03/30

Ethics committee reference number

IR.ZAUMS.RES.1400.121

Health conditions studied

1

Description of health condition studied

Flexible flatfoot

ICD-10 code

M21.4

ICD-10 code description

Flat foot [pes planus] (acquired)

Primary outcomes

1

Description

Drop Navicular

Timepoint

Before intervention, After the intervention(4 week),
4weeks after finishing of the intervention

Method of measurement

ruler

2

Description

The average area of the center of pressure of the sole of the foot

Timepoint

Before intervention, After the intervention(4 week),
4weeks after finishing of the intervention

Method of measurement

force plate

3

Description

Mean anterior-posterior displacement

Timepoint

Before intervention, After the intervention(4 week),
4weeks after finishing of the intervention

Method of measurement

force plate

4

Description

Mean internal-external displacement

Timepoint

Before intervention, After the intervention(4 week),
4weeks after finishing of the intervention

Method of measurement

force plate

5

Description

Average speed of pressure center oscillations

Timepoint

Before intervention, After the intervention(4 week),
4weeks after finishing of the intervention

Method of measurement

force plate

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Global exercises(ankle and hip), 12 sessions for 4 consecutive weeks, 3 times a week, 20 to 30 minutes each session, which includes training and exercises.

Category

Rehabilitation

2

Description

Control group: Ankle exercises, 12 training sessions for 4 consecutive weeks, 3 times a week, 20 to 30 minutes each session, which includes training and doing exercises.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Physiotherapy clinic of Ghaem hospital in Mashhad

Full name of responsible person

Dr. Asghar Akbari

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Ahmadabad St., Ghaem Hospital

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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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Web page address

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Zahedan University of Medical Sciences

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

Zahedan University of Medical Sciences

Full name of responsible person

Dr.Asghar Akbari

Position

Phd in Physiotherapy, Associate professor, Director of
the Department of physiotherapy Zahedan Unive

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Department of Physiotherapy, School of Rehabilitation
Sciences, Razmejo-Moghadam Laboratory, Ayatoal

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Person responsible for scientific inquiries

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

All data can be shared after unidentifiable individuals.

When the data will become available and for how long

2 months after the results are published

To whom data/document is available

Researchers working in academic and scientific
institutions

Under which criteria data/document could be used

All data can be made available to researchers after
unidentifiable the participants, and any other analysis of
the data and any use for research and therapeutic
purposes of this study is allowed.

From where data/document is obtainable

Dr. Asghar Akbari Address: Ayatollah Kafami St.,
Razmojomoghaddam Laboratory, Faculty of Rehabilitation
Sciences, Department of Physiotherapy. City: Zahedan.
Sistan and Baluchestan Province. Country: Islamic
Republic of Iran. Postal Code: 6485598136 Tel: 0098 54
46753342

What processes are involved for a request to access data/document

After receiving the message from the applicant and
reviewing the application conditions, the required
information will be sent to the person at the earliest
opportunity.

Comments