Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative effect of post Isometric Relaxation and Active Release Technique of calf muscles in young females

Protocol summary

Study aim
To compare the effects of post isometric relaxation and active release technique on calf muscles tightness in young females.

Design
A Randomized Clinical Trial with two parallel groups, a single- blinded study of third phase with 15 patients in group, which is 30 in total.

Settings and conduct
Subjects were randomly selected from outdoor Patient Department OPD and following clinical setup. Allied Hospital Faisalabad. Patients were kept unaware about which group they allocated.

Participants/Inclusion and exclusion criteria
• Age group 20-40 • Had symptoms of pain, tightness and functional loss. • Patient with calf pain VAS moderate(4-7) • Lower extremity functional scale functional disability due to calf tightness • Weight bearing wall lunge test positive in patients • Ankle fracture. • Pregnancy. • Deep Vein Thrombosis. • Medication like cholesterol lowering drugs. • Compartment syndrome. • Radiating pain. • Sports related injury

Intervention groups
Group A of Muscle Energy Technique Group B Active Release Technique

Main outcome variables
1. Pain 2. Ankle Range Of Motion 3. Functional Disability

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20240508061706N1**
Registration date: **2024-05-29, 1403/03/09**
Registration timing: **prospective**
Last update: **2024-05-29, 1403/03/09**
Update count: **0**

Registration date
2024-05-29, 1403/03/09

Registrant information

Name
Zuha Javed

Name of organization / entity
The university of Faisalabad

Country
Pakistan

Phone
+92 308 1358628

Email address
2022-ms-pt-012@tuf.edu.pk

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-05-31, 1403/03/11

Expected recruitment end date
2024-09-30, 1403/07/09

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparative effect of post Isometric Relaxation and Active Release Technique of calf muscles in young females

Public title
Comparative effect of post Isometric Relaxation and Active Release Technique of calf muscles in young females

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

• Age group 20-40 • Without any injury of ankle, hip and lower extremity • Lower extremity functional scale functional disability due to calf tightness • Weight bearing wall lunge test positive in patients. • Patient with calf pain VAS moderate(4-7)

Exclusion criteria:

• Sports related injury • Ankle fracture. • Deep Vein Thrombosis • Compartment syndrome. • Medication like cholesterol lowering drugs. • Pregnancy.

Age

From **20 years** old to **40 years** old

Gender

Female

Phase

3

Groups that have been masked

- Participant

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization done by Lottery method. Participants name and group name along with group number were written on the small paper strips. As the sample size was 30. So 30 small stripes were making and put in a bowl. Then ask the participant to pick one stripes from the bowl. Another person standing along and collect the paper stripes from the participant and opened it and allocates the patient in groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

30 small stripes were making and put in a bowl. Then ask the participant to pick one stripes from the bowl. Another person standing along and collect the paper stripes from the participant and opened it and allocates the patient in groups. participants were blind they have no idea about the allocation.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research and Ethics/ Technical Committee for the University of Faisalabad

Street address

University Avenue, Faisal Town Canal Road, Faisalabad, Punjab

City

Faisalabad

Postal code

38000

Approval date

2024-02-17, 1402/11/28

Ethics committee reference number

TUF/DR/SA/MSPP/2024/381

Health conditions studied

1

Description of health condition studied

Calf muscles tightness.

ICD-10 code

M62. 469

ICD-10 code description

Calf muscle, tightness

Primary outcomes

1

Description

Pain

Timepoint

at base line, at every session and end of the total 8 sessions.

Method of measurement

Visual Analog Scale

2

Description

Ankle Range of Motion

Timepoint

At baseline and end of 8th session.

Method of measurement

Universal Goniometer

Secondary outcomes

1

Description

Functional Disability

Timepoint

At base line and end of 8th session

Method of measurement

Lower Extremity Functional Scale(LEFS)

Intervention groups

1

Description

Intervention group: Post Isometric Relaxation

Category
Treatment - Devices

2

Description
Intervention group: Active Release Technique
Category
Treatment - Devices

Recruitment centers

1

Recruitment center
Name of recruitment center
Allied Hospital Faisalabad
Full name of responsible person
Dr. Maryam Safdar
Street address
Dr. Tusi Rd, Faisalabad, Punjab
City
Faisalabad
Postal code
38000
Phone
+92 321 7978088
Email
maryam.safdar@tuf.edu.pk
Web page address
https://ahfsd.pk/

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University Of Faisalabad
Full name of responsible person
Maryam Safdar
Street address
University Avenue, Faisal Town Canal Road, Faisalabad, Punjab
City
Faisalabad
Postal code
38000
Phone
+92 321 7978088
Email
maryam.safdar@tuf.edu.pk
Web page address
https://tuf.edu.pk
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
The University Of Faisalabad
Proportion provided by this source
100
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
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
The University Of Faisalabad
Full name of responsible person
Zuha Javed
Position
Student
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
Street address
P-310, Khalid-Bin-Waleed road, Umar block, Riaz-ul-Jannah, Daewoo road
City
Faisalabad
Province
Punjab
Postal code
38000
Phone
+92 308 1358628
Email
zuhajaved972@gmail.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
The University Of Faisalabad
Full name of responsible person
Zuha Javed
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Student
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Person responsible for updating data

Contact

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The University Of Faisalabad

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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

Yes - There is a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

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When the data will become available and for how long

Starting 6 months after publication. And it will remain available for every one

To whom data/document is available

This will be available for everyone

Under which criteria data/document could be used

maryam.safdar@tuf.edu.pk 00923217978088

From where data/document is obtainable

zuhajaved972@gmail.com 00923081365654

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

Any applicant just need to contact for data / file. Contact to Email at zuhajaved972gmail.com 00923081365654

Comments