

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 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

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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

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Web page address<https://ahfsd.pk/>**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<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

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Person responsible for updating data

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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

Comparative effects of Post Isometric Relaxation and
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females

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