Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

EFFECTS OF MYOFASCIAL RELEASE VERSUS STATIC STRETCHING IN CALF MUSCLES SORENESS IN RUNNERS ON FLEXIBILITY AND PERFORMANCE

Protocol summary

Study aim

To compare effects of myofascial release and static stretching in improving flexibility and performance of calf muscle in runners.

Design

The study groups are myofascial release and static stretching. study conducted in phase 1. sample size is 30 which is calculated by online software epitool. the study is randomized clinical trial in which groups are randomized by using random number table method. study is double blinded in which participant, investigator, physiotherapist and outcome acessors are masked. the allocation was concealed.

Settings and conduct

The data was collected from Punjab university sports complex and wapda sports complex Lahore Pakistan. the participants are unaware of which treatment is given, investigator and physiotherapist are unaware of study groups and outcome assessors are unaware of results and treatment techniques. so they are blinded during data collection.

Participants/Inclusion and exclusion criteria

Runners who have at least 5 years athletic practice, power leg, do not have previous surgery of lower limb and no injury in past 2 months are included. athletes having heart disease, deep vein thrombosis, leg injury, wound on calf muscles, knee pain, knee fracture are excluded.

Intervention groups

There are two intervention groups. in one group myofascial release technique which include direct pressure and slow sweeping pressure is applied for 2 minute with interval of 1 minute and in other group static stretching is applied for 30 seconds with 15 seconds interval.

Main outcome variables

Pain was assessed by using Numeric Pain Rating Scale. Data was collected by Knee to wall test, Sit and reach test, Single leg standing heel raise test and Single leg hop for distance.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210725051979N1**
Registration date: **2021-08-20, 1400/05/29**
Registration timing: **registered_while_recruiting**

Last update: **2021-08-20, 1400/05/29**
Update count: **0**

Registration date

2021-08-20, 1400/05/29

Registrant information

Name

Ifra Javed

Name of organization / entity

Riphah International University Lahore campus

Country

Pakistan

Phone

+92 42 58737431

Email address

ifrajaved41@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-05, 1400/02/15

Expected recruitment end date

2021-09-02, 1400/06/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
EFFECTS OF MYOFASCIAL RELEASE VERSUS STATIC STRETCHING IN CALF MUSCLES SORENESS IN RUNNERS ON FLEXIBILITY AND PERFORMANCE

Public title
Effects of interventional techniques in calf muscle soreness in runners

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Players who have at least 5 years' athletic practice Runners Healthy individual Power leg No previous history of lower limb surgical procedure In past 2 months no history of lower limb injury

Exclusion criteria:
Athletes having heart disease Leg injury Wound on calf muscles Sprain and strain of ankle Knee pain Knee Fracture Deep vein thrombosis

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

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
simple randomization method is used. individuals are randomized in two groups by using random number table method. stratified randomization is done. allocation was concealed.

Blinding (investigator's opinion)
Double blinded

Blinding description
athletes who are participated in the study are unaware of which treatment is given. investigator is unaware of study groups. physiotherapist who is giving treatment is unaware of other treatment technique that is given to other group. data collectors are unaware of readings of other groups. outcome assessors do not know the result of other group.

Placebo
Not used

Assignment
Other

Other design features
the study conducted was randomized clinical trial

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Riphah International University

Street address
28-M Quaid-e-Azam industrial estate, Kot lakhpath, Lahore Pakistan

City
Lahore

Postal code
54000

Approval date
2021-06-15, 1400/03/25

Ethics committee reference number
REC/RCR & AHS/20/0403

Health conditions studied

1

Description of health condition studied
Healthy runners

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Flexibility and performance

Timepoint
Before intervention and after intervention

Method of measurement
Flexibility is measured by using knee to wall test and sit and reach test. performance is measured by single leg heel raise test and single leg hop for distance.

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: "Myofascial release"

Category
Rehabilitation

2

Description
Intervention group 2: Static stretching

Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Riphah International University
Full name of responsible person
Dr shakil ur rehman
Street address
28-M Quaid-e-Azam industrial estate, Kot lakhpath, Lahore Pakistan
City
Lahore
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Riphah International University Lahore
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Dr shakil ur rehman
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Postal code
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Email
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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
Riphah International University Lahore
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
Riphah International University Lahore
Full name of responsible person
IFRA
Position
Student
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Master
Other areas of specialty/work
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+92 42 58737431
Email
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available