Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

Protocol summary

Study aim
To evaluate the effects of floss banding technique and Instrument-assisted soft tissue mobilization on pain, range of motion in Athletes with Achilles tendinopathy

Design
A concealed, randomized, single blinded, sham controlled clinical trials with parallel groups 17 participants in a group total 34 participants. started from July 30, 2024 after ethical committee approval and end in April 2025 following one year

Settings and conduct
Pakistan Sports Board Coaching Center Lahore Saeed Ajmal International Cricket Academy, Naeem Zeshan Shaheed Football Club, Sheefa Badminton Club

Participants/Inclusion and exclusion criteria
Inclusion criteria : Age (18-35y); Gender (Male and female); If patient feel pain in the achilles tendon; VISA-A score less than 78; Decreased ankle range of motion; Exclusion criteria : Previous Achilles tendon surgery; Pain in any other region (knee, hip); Local infection; If pregnant; Diabetic neuropathy

Intervention groups
Group A recieved 12 sessions of IASTM over a 6-week period in adults with Achilles tendinopathy. Group A received 2 visits treatment per week. IASTM applied for 2 min after 5 min warm up and baseline treatment. Group B received 12 sessions of floss band over a 6 week period in patients with Achilles tendinopathy. Floss band applied for 2 min after warm up and baseline treatment. Patients were assessed before first session, after 6th session and after 12th session.

Main outcome variables
Pain, Range of motion

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20250525065880N1**
Registration date: **2025-05-29, 1404/03/08**
Registration timing: **retrospective**

Last update: **2025-05-29, 1404/03/08**
Update count: **0**

Registration date
2025-05-29, 1404/03/08

Registrant information
Name
Muhammad Hassan Ikhlas
Name of organization / entity
Riphah International University
Country
Pakistan
Phone
+92 334 4788248
Email address
mianhassan896@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-08-05, 1403/05/15

Expected recruitment end date
2025-12-20, 1404/09/29

Actual recruitment start date
2024-10-15, 1403/07/24

Actual recruitment end date
2025-01-08, 1403/10/19

Trial completion date
2025-04-24, 1404/02/04

Scientific title

Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

Public title
Effects of floss banding technique and Instrument-assisted soft tissue mobilization on Pain, Range of motion in athletes with Achilles tendinopathy

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
If patient feel pain in the achilles tendon, The Victorian Institute of Sport Assessment-Achilles (VISA-A) score less than 78, Decreased ankle range of motion Age between 18y to 35y

Exclusion criteria:
Previous achilles tendon surgery Pain in any other region (knee, hip) Local infection If pregnant Diabetic neuropathy

Age
From **18 years** old to **35 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **34**
Actual sample size reached: **34**

Randomization (investigator's opinion)
Randomized

Randomization description
Participants randomly allocated to two groups using sealed envelope method to ensure allocation concealment and biasness reduction. A set of sealed envelop assigned as group A and the other one was group B. Group A was given the Floss band treatment and group B was given the Instrument assisted soft tissue mobilization.

Blinding (investigator's opinion)
Single blinded

Blinding description
Participants were unaware of their allocation. it means that we use envelop method for concealment. we also used sham intervention for participants blinding. we gave a fake treatment of instrument assisted soft tissue mobilization to the FLOSS band group. we did not apply pressure on participants for fake sensation. we did the same procedure to group B of instrument assisted soft tissue mobilization.

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Research & Ethical Review Committee "Riphah College of Rehabilitation and Allied Health Sciences" R

Street address
25 Raza Saeed Road, Bhabra Block M Gulberg 3, Lahore Pakistan

City
Lahore

Postal code
54660

Approval date
2024-07-30, 1403/05/09

Ethics committee reference number
REC/RCR&AHS/24/0470

Health conditions studied

1

Description of health condition studied
Achilles Tendinopathy

ICD-10 code
M67.00

ICD-10 code description
Short Achilles tendon (acquired), unspecified ankle

Primary outcomes

1

Description
Pain

Timepoint
Before treatment, after sixth visit and after 12th visit

Method of measurement
Numeric Pain Rating Scale , The Victorian Institute of Sport Assessment-Achilles Scale

Secondary outcomes

1

Description
Range of motion

Timepoint
Before treatment starting, After 6th visit and after 12th visit

Method of measurement
Goniometer

Intervention groups

1

Description

In Group A received 12 sessions of floss band over a 6 week period in patients with Achilles tendinopathy. Floss band applied for 2 min after warm up and baseline treatment. Patients were assessed before first session, after 6th session and after 12th session. Warm up with hot pack. Baseline treatment include eccentric exercise 15 repetitions and 3 sets of CALF stretches with 30 seconds hold and then 3sts of strengthening exercise of calf muscles with 15 repetitions per set. Floss band was applied on ankle joint and Achilles tendon with figure 8 warping method. The floss band was with 7 feet length, 1.1mm thickness and 5cm width. Floss band overlapped by 50% to extent possible. passive dorsiflexion and planter flexion inversion and eversion performed after wrapping then remove floss bandtervention group:

Category

Treatment - Other

2

Description

Intervention group: Group B recieved 12 sessions of IASTM over a 6-week period in adults with Achilles tendinopathy. Group A received 2 visits treatment per week. IASTM applied for 2 min after 5 min warm up and baseline treatment. Patients were assessed before first session and after 6th session and at the end of follow-up after 12th session. Warm provided with hot pack. Baseline treatment include eccentric exercise 15 repetitions and 3 sets of CALF stretches with 30 seconds hold and then 3sts of strengthening exercise of calf muscles with 15 repetitions per set. IASTM tool was applied at the angle of 60 degree. IASTM tool was applied parallel to the muscle fibers and tendon

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Pakistan sports board Coaching Center Lahore

Full name of responsible person

Mr. Yasir Pirzada

Street address

PSB coaching center ferozpur road

City

Lahore

Postal code

54600

Phone

+92 42 99230382

Email

infopsb@sports.gov.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah International University

Full name of responsible person

Shakeel ur rehman

Street address

25 Raza Saeed Road, Bhabra Blpck M Gulberg 3, LahorePunjab

City

Lahore

Postal code

54660

Phone

+92 300 0720887

Email

research.frahslhr@riphah.edu.pk

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Riphah International University

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

Full name of responsible person

Muhammad Hassan Ikhlas

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

PGSHF block D1 house#348 satiana road faisalabad

City

Faisalabad

Province

Punjab

Postal code

38000

Phone

+92 334 4788248

Email

mianhassan896@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Riphah international university

Full name of responsible person
Muhammad Hassan Ikhlas

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

Street address
Punjab govt servant housing foundation satiana road faisalabad blockD1 House# 348

City
Faisalabad

Province
Punjab

Postal code
38000

Phone
+92 334 4788248

Email
drphysio896@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Riphah international university

Full name of responsible person
MUhammad Hassan Ikhlas

Position
student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

Street address
Punjab govt servant housing foundation satiana road faisalabad, Block D1 House# 348

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+92 334 4788248

Email
drphysio896@gmail.com

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
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
No - There is not a plan to make this available

Title and more details about the data/document
Inform consent data collection form, It contain personal information, Contact info

When the data will become available and for how long
Data will be available after 4 weeks of study completion.

To whom data/document is available
For students' Participants' Rsearchers and teachers

Under which criteria data/document could be used
For athletes improvement, For next researches and under Google scholar and Pubmed

From where data/document is obtainable
Google scholar and Pubmed

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

Comments