

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 Jun 2026

### Effectiveness of Kinesio Taping versus Mulligan's Mobilization with Movement in Sub-acute Lateral Ankle Sprain in Footballers - A Randomized Controlled Trial

#### Protocol summary

##### Study aim

The purpose of this study was to compare the effectiveness of KT with conventional physical therapy and MWM with conventional physical therapy on pain, disability, and function in footballers with sub-acute lateral ankle sprains.

##### Design

Parallel group, single-blind, randomized control trial

##### Settings and conduct

30 subjects will be studied at the Dr. AQ Khan Physio Clinic, Multan. Participants and assessors will be blinded. During the first visit, the researcher will complete a thorough case history and lumbar regional assessment. Patients will be assessed using the Foot and Ankle Ability Measure score for function and the Numeric Pain Rating Scale for pain. Treatment will then be continued according to the allotted group intervention. All participants will receive a total of 12 treatment sessions over a 4-week period, which will consist of 3 treatment sessions per week. The researcher will take a follow-up survey after 12 sessions. A follow-up assessment will be done at the end of 12 sessions as the post-treatment reading.

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria: age between 13 and 17 years; male athletes; more than two years' participation in a football career; history of recurrent ankle sprains with an average of six months since their last sprain; feeling of ankle instability during training. Exclusion criteria: current assisted ambulation; acute ankle trauma occurring within 7 days of injury incident; medial ankle instability; grade III ankle sprains; a sprain sustained in the previous 12 months; connective tissue disorder; inability to bear weight through the affected extremity immediately after injury; chronic ankle injury on the contralateral side.

##### Intervention groups

Group A: Kinesio taping with conventional physical therapy. Group B: Mulligan's Mobilization with Movement with conventional physical therapy.

##### Main outcome variables

Pain and function

#### General information

##### Reason for update

##### Acronym

KTvMWM LAS

##### IRCT registration information

IRCT registration number: **IRCT20210205050256N3**

Registration date: **2023-06-19, 1402/03/29**

Registration timing: **retrospective**

Last update: **2023-06-19, 1402/03/29**

Update count: **0**

##### Registration date

2023-06-19, 1402/03/29

##### Registrant information

##### Name

Tooba Asif

##### Name of organization / entity

TIMES Institute

##### Country

Pakistan

##### Phone

+92 21 36410331

##### Email address

tooba573@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-11-09, 1401/08/18

**Expected recruitment end date**

2023-05-09, 1402/02/19

**Actual recruitment start date**

2022-11-09, 1401/08/18

**Actual recruitment end date**

2023-05-09, 1402/02/19

**Trial completion date**

empty

**Scientific title**

Effectiveness of Kinesio Taping versus Mulligan's Mobilization with Movement in Sub-acute Lateral Ankle Sprain in Footballers – A Randomized Controlled Trial

**Public title**

Effectiveness of Kinesio Taping versus Mulligan's Mobilization with Movement in Sub-acute Lateral Ankle Sprain in Footballers

**Purpose**

Treatment

**Inclusion/Exclusion criteria****Inclusion criteria:**

Age between 13 to 17 years Male athletes More than two years' participation in football career History of recurrent ankle sprain with the average of six (five) months since their last sprain Feeling of ankle instability during training

**Exclusion criteria:**

Current assisted ambulation Acute ankle trauma occurring within 7 days of injury incident Medial ankle instability Grade III ankle sprains A sprain sustained in the previous 12 months Connective tissue disorder Inability to bear weight through the affected extremity immediately after injury Chronic ankle injury on the contralateral side

**Age**

From **13 years** old to **17 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

- Outcome assessor

**Sample size**

Target sample size: **30**

Actual sample size reached: **30**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Non-probability, convenient sampling will be used. Subjects will be randomly distributed to two groups using the lottery method of randomization. Slips will be prepared from 1 to 30. They will be homogeneous in shape, color, and size etc. Furthermore, they will be shuffled and placed in a box. The selected 15 slips will be allocated to Group 1, who will receive kinesiotaping with conventional physical therapy, and the other 15 will be allocated to Group 2, who will receive Mulligan's mobilization with movement with conventional physical therapy.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Every patient will be assessed by independent assessor at the start and end of total treatment sessions to keep the assessment unbiased.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Institutional Review Board

**Street address**

Street 6 Khanewall road hasanabad gate one opposite zic petrol pump, Multan

**City**

Multan

**Postal code**

66666

**Approval date**

2022-09-09, 1401/06/18

**Ethics committee reference number**

PT/2022/REC/IRB/023

**Health conditions studied****1****Description of health condition studied**

Ankle sprain

**ICD-10 code**

S93.4

**ICD-10 code description**

Sprain of ankle

**Primary outcomes****1****Description**

Pain

**Timepoint**

before intervention and 4 weeks after intervention

**Method of measurement**

Numeric Pain Rating Scale (NPRS)

**2****Description**

Function

**Timepoint**

Before intervention and 4 weeks after intervention

## Method of measurement

Foot and Ankle Ability Measure (FAAM)

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Kinesio Taping with Conventional Physical Therapy: 1st Session: 1. Lymphatic correction approach for the lateral ankle: Requirement: 1 Kinesio Fan strip (5-Strip cut) Position of the subject: Long sitting or supine lying with the lower leg extended and the ankle in plantar flexion (Stretch position) .Protocol: The lymph node on the lateral side of the ankle joint area to which lymph drainage is being directed should be placed just above the base of the fan incision. Apply the fan's tail over the edematous area with zero to very little tension (0-15 percent available).2. Application for Achilles tendon correction: Requirement: 1 Kinesio Y strip. Position of the subject: Lower leg pronated lying outside the plinth. Protocol: At the heel, apply the tape end without applying tension. Hold the tape end to make sure that there won't be any tension on the tape's base. With the patient stretched out, apply moderate to severe tension (50-75%) along the length of the tendon. Keep in mind to relax the muscles around your muscle belly. Slide the hand holding the base up to the position of maximum tension. Apply the tape's base or tails with the proper amount of tension for insertion at the origin.2nd and 3rd Session:1. Application for tibialis anterior muscle: Requirement: 1 Kinesio Y strip. Position of the subject: Supine lying with the affected lower leg out of the plinth. Protocol: The little toe's plantar area receives the base of the Y-strip application. The tail and the lateral malleolus are then placed along the muscle's path till the head of the fibula. This insert-to-origin technique uses paper-off or very light-to-light tension (between 15 and 25 percent of the available). 2. Application for peroneus longus and brevis muscle: Requirement: 1 Kinesio Y strip.Position of the subject: Supine lying with the affected lower leg out of the plinth. Protocol: The base of the heel is covered by the base of Y strip. Both the tail and the muscle's path stop at the lateral aspect of the tibia. The tail passes anteriorly to the lateral malleolus. This insert-to-origin technique uses paper-off or very light-to-light tension (between 15 and 25 percent of the available).However, this group was also given conventional treatment, which was a hot pack for 10 minutes and ankle isometrics to maintain blood circulation and muscle strength. Therapeutic ultrasound therapy was also applied. The experimental results suggest the following parameters: Frequency: 1 MHz, Intensity: 1.5 W/cm<sup>2</sup>, Duration: 10 minutes, and Mode: Continuous. There were three sessions in total.

#### Category

Treatment - Other

### 2

#### Description

Intervention group: Mulligan's Mobilization with Movement with Conventional Physical Therapy: Position of the subject: A Mulligan's mobilization belt (non-elastic seatbelt) will be applied over the patient's pelvis, distal tibia, and fibula, with foam padding the Achilles tendon, while the patient is in a relaxed stance on a bench. Hand placement: With one hand's web space, stabilize the talus and forefoot near the anterior joint line. To ensure a constant alignment of the distal leg and foot, the other hand will be placed anteriorly over the proximal tibia and fibula to guide the knee over the second and third toes.Application of the technique: During slow active dorsiflexion to the end of the pain-free range, the therapist translated backward, applying tension to the seatbelt and causing a posteroanterior tibial glide. The seat belt was maintained perpendicular to the long axis of the tibia throughout the movement, and it was released after returning to the starting position.Total number of glide: 10 Repetition per set, 3 sets per session, with 1 minute rest between the sets.This group also received conventional treatment, which was a hot pack for 10 minutes and ankle isometrics to maintain blood circulation and muscle strength. Therapeutic ultrasound therapy was also applied. The experimental results suggest the following parameters: Frequency: 1 MHz, Intensity: 1.5 W/cm<sup>2</sup>, Duration: 10 minutes, and Mode: Continuous. There were three sessions in total.

#### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Gulfam Basharat Hospital

##### Full name of responsible person

Dr. Abdul Qadeer Khan

##### Street address

Street 6 Khanewall road hasanabad gate one opposite zic petrol pump, Multan

##### City

Rahim Yar Khan

##### Postal code

66666

##### Phone

+92 313 6046174

##### Email

abdul.qadeerkhan4719@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

TIMES Institute

##### Full name of responsible person

Dr. Samraiz Mughal

**Street address**

Main Boulevard, Peer Khursheed Colony, Multan.

**City**

Multan

**Postal code**

66666

**Phone**

+92 321 7676790

**Email**

drsamraiz@gmail.com

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

TIMES Institute

**Proportion provided by this source**

20

**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**

TIMES Institute

**Full name of responsible person**

Dr. Samraiz Mughal

**Position**

Research Officer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

Main Boulevard, Peer Khursheed Colony, Multan.

**City**

Multan

**Province**

Punjab

**Postal code**

66666

**Phone**

+92 321 7676790

**Email**

drsamraiz@gmail.com

## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**

TIMES Institute

**Full name of responsible person**

Dr. Samraiz Mughal

**Position**

Research Officer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

Main Boulevard, Peer Khursheed Colony, Multan.

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**Province**

Punjab

**Postal code**

66666

**Phone**

+92 321 7676790

**Email**

drsamraiz@gmail.com

## Person responsible for updating data

**Contact**

**Name of organization / entity**

TIMES Institute

**Full name of responsible person**

Dr. Abdul Qadeer Khan

**Position**

Student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

**Street address**

Main Boulevard, Peer Khursheed Colony, Multan.

**City**

Multan

**Province**

Punjab

**Postal code**

66666

**Phone**

+92 313 6046174

**Email**

abdul.qadeerkhan4719@gmail.com

## 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**

Not applicable

**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