Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

KTvMWMLAS

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/cm2, 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/cm2, 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
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
TIMES Institute
Full name of responsible person

Dr. Samraiz Mughal

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Main Boulevard, Peer Khursheed Colony, Multan.

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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
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

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Main Boulevard, Peer Khursheed Colony, Multan.

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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

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Person responsible for updating data

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Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

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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
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