# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 2026

## Comparative effects of muscle energy technique and deep friction massage along with static stretching of extensor carpi radialis brevis in patients with lateral epicondylitis

## Protocol summary

**Study aim**
To evaluate the effects of METS and Deep friction massage along with Static Stretching of Extesnsor carpi Radialis brevis in patients with lateral epicondylitis.

**Design**
Pragmatic, community based, parallel group, double binding, randomised clinical trial the calculated sample size is 24. After adding 20% dropout ratio, it becomes 30.

**Settings and conduct**
Conduct randomized clinical trial blinding Double blinding was used as patient and assessor was blind, i.e, patient was unware of which treatment was applied to them and assessor was also unware during assessment which treatment was provided to that subject.

**Participants/Inclusion and exclusion criteria**
Patients with pain in extension of wrist with resistance Patients having pain with passive wrist flexion with the elbow extension Tenderness on palpation on elbow Moderate level of pain (4/10) Age b/w 25 to 50 years Positive Cozen's Test Exclusion Criteria Neurological Deficit Previous trauma to the elbow region History of recent surgery in cervical region, upper limb or heart related surgery Dislocation of elbow in pervious 3months Diagnosed degenerative disease

**Intervention groups**
Subjects in Group A received MET Group B was treated two times a week for four weeks with deep transverse friction massage at the tendon origin for 15 minutes.

**Main outcome variables**
Pain, Wrist grip, Functional limitation

## General information

**Reason for update**

**Acronym**
Comparative effects of muscle energy technique and deep friction massage along with static stretching of extensor carpi radialis brevis in patients with lateral epicondylitis

**IRCT registration information**
IRCT registration number: **IRCT20240517061825N1**
Registration date: **2024-08-17, 1403/05/27**
Registration timing: **retrospective**

Last update: **2024-08-17, 1403/05/27**
Update count: **0**

**Registration date**
2024-08-17, 1403/05/27

**Registrant information**

**Name**
Ayesha Hassan

**Name of organization / entity**
The University Of Faisalabad

**Country**
Pakistan

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+92 340 6822985

**Email address**
2022-ms-pt-057@tuf.edu.pk

**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2024-02-17, 1402/11/28

**Expected recruitment end date**
2024-03-16, 1402/12/26

**Actual recruitment start date**
2024-02-17, 1402/11/28

**Actual recruitment end date**
2024-03-16, 1402/12/26

**Trial completion date**
2024-03-16, 1402/12/26

**Scientific title**
Comparative effects of muscle energy technique and deep friction massage along with static stretching of extensor carpi radialis brevis in patients with lateral epicondylitis

**Public title**
Comparative effects of muscle energy technique and deep friction massage along with static stretching of extensor carpi radialis brevis in patients with lateral epiccondylitis

**Purpose**
Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**
Patients with pain in extension of wrist with resistance Patients having pain with passive wrist flexion with the elbow extension Tenderness on palpation on elbow Moderate level of pain (4/10) Age b/w 25 to 50 years Positive Cozen's Test

**Exclusion criteria:**
Neurological Deficit Previous trauma to the elbow region History of recent surgery in cervical region, upper limb or heart related surgery Dislocation of elbow in pervious 3months Diagnosed degenerative disease

**Age**
From **25 years** old to **50 years** old

**Gender**
Both

**Phase**
N/A

**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **30**
Actual sample size reached: **30**

**Randomization (investigator's opinion)**
Randomized

**Randomization description**
In this study, participants will be randomly assigned to either the intervention group A and group B using a computer-generated random sequence. Block randomization will be employed to ensure equal allocation across groups. The randomization sequence will be concealed using sealed, opaque envelopes, and the trial will be double-blinded to minimize bias. Randomization is used to ensure comparable groups and to reduce selection bias in the trial.

**Blinding (investigator's opinion)**
Double blinded

**Blinding description**
Double blinding was used as patient and assessor was blind, i.e, patient was unware of which treatment was applied to them and assessor was also unware during assessment which treatment was provided to that subject.

**Placebo**
Not used

**Assignment**
Other

**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**
37000

**Approval date**
2024-02-17, 1402/11/28

**Ethics committee reference number**
TUF/Addl Reg/SB/792

## Health conditions studied

### 1

**Description of health condition studied**
Lateral Epicondylitis

**ICD-10 code**
M77.10

**ICD-10 code description**
Lateral epicondylitis, unspecified elbow

## Primary outcomes

### 1

**Description**
Pain

**Timepoint**
Before intervention and and after intervention

**Method of measurement**
Numeric pain rating scale

## Secondary outcomes

### 1

**Description**
Wrist grip

**Timepoint**
Before intervention and after intervention

**Method of measurement**
Hand held dynamometer

## Intervention groups

**1**

**Description**
"Intervention group 1: subjects in group A received muscle energy technique approach with ultrasound therapy for four weeks twice in a week in compare with intervention group B received deep friction massage along with static stretching of extensor carpi radialis brevis for four weeks twice in a week."
**Category**
Treatment - Other

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Allied hospital
**Full name of responsible person**
Maryum Hassan
**Street address**
Dr.tusi road
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**Web page address**

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
The university of faisalabad
**Full name of responsible person**
Saqlain babar
**Street address**
University Avenue, Faisal Town Canal Road, Faisalabad, Punjab
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syedsaqlainbabar21@gmail.com
**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**
Sponsor: country of origin
**Country of origin**
PK
**Type of organization providing the funding**
Other

## Person responsible for general inquiries

**Contact**
**Name of organization / entity**
The university of faisalabad
**Full name of responsible person**
Nawal nasir
**Position**
cosultant
**Latest degree**
Master
**Other areas of specialty/work**
Physiotherapy
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## Person responsible for scientific inquiries

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2022-ms-pt-053@tuf.edu.pk

## Person responsible for updating data

**Contact**

**Name of organization / entity**

The university of faisalabad

**Full name of responsible person**

Ayesha Hassan

**Position**

Consultant

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

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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**

Yes - There is 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 muscle energy technique and deep friction massage along with static stretching of extensor carpi radialis brevis

**When the data will become available and for how long**

30 days after publication

**To whom data/document is available**

30 days after publication

**Under which criteria data/document could be used**

Access to the data will be facilitated through specified mechanism such as a secure online portal or data sharing platform. Requests for access will be reviewed by a designated committee or entity responsible for ensuring that they meet established criteria and comply with relevant regulations and guidelines. Additional supporting information and documents maybe provided to assist requester in understanding the available data and its potential applications.

**From where data/document is obtainable**

The university of faisalabad 38000 http://tuf.edu.pk/0092418750971-5 Fax: +92 41 875 0970

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

To receive the documents or data files the process typically involves the following steps 1; Request initiation 2 verification and authorization 3 processing time 4 document retrieval or data extraction 5 Quality assurance 6 delivery 7 cofirmation of reciept

**Comments**

Nothing