

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### A comparative study of the effectiveness of two treatment methods, dry needling and kinesiotaping, in the treatment of tennis elbow

#### Protocol summary

##### Study aim

Determining and comparing the effectiveness of two treatment methods, dry needling and kinesiotaping, in the treatment of tennis elbow

##### Design

Clinical trial, with parallel groups, double-blind, randomized, on 62 patients. SPSS version 22 software was used for randomization

##### Settings and conduct

At the physical medicine clinic; Acupuncture method: one needle in the lateral epicondyle and at the point of maximum pain. Kinesio taping method: A Y strip with a width of 5 cm from a place one cm above the external epicondyle to the distal side so that the extensor muscles are placed between the two adhesive arms. An I-shaped band with a width of 5 cm and a length of 10 cm from medial to lateral forearm with moderate tension.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Age 30 to 65 years; Pain in the lateral epicondyle for at least a month; Pain in cozen's test; Pain in the Maudsley's test; Supination resistance test  
Exclusion criteria: diabetes mellitus; cervical radiculopathy; neuropathy; arthritis in the upper limb or history of arthritis; history of forearm and elbow surgery; Acute elbow trauma; allergy to Kinesiology tape; Cubital tunnel syndrome; carpal tunnel syndrome; rotator cuff tendonitis; fibromyalgia syndrome; ipsilateral internal epicondylitis

##### Intervention groups

The first group was treated with dry needling and exercise and a non-steroidal anti-inflammatory drug (NSAID) (Meloxicam 15 mg daily) for three weeks. The second group was treated with kinesiotyping and exercise and a NSAID for three weeks. Home sports include stretching exercises, eccentric strengthening exercises and joint range of motion. Evaluation of pain intensity using Visual Analogue Scale (VAS) criterion. Evaluation of the functional status with the The

Patient-Rated Tennis Elbow Evaluation (PRTEE)

##### Main outcome variables

pain score based on VAS criteria; pain score based on PRTEE criteria

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20230722058889N1**  
Registration date: **2023-09-23, 1402/07/01**  
Registration timing: **registered\_while\_recruiting**

Last update: **2023-09-23, 1402/07/01**

Update count: **0**

##### Registration date

2023-09-23, 1402/07/01

##### Registrant information

##### Name

zahra eshaghian dorcheh

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 31 3376 2229

##### Email address

mozr88@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-08-11, 1402/05/20

##### Expected recruitment end date

2024-11-10, 1403/08/20

##### Actual recruitment start date

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

A comparative study of the effectiveness of two treatment methods, dry needling and kinesiotaping, in the treatment of tennis elbow

**Public title**

A comparative study of the effectiveness of two treatment methods, dry needling and kinesiotaping, in the treatment of tennis elbow

**Purpose**

Treatment

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

Age 30 to 65 years Pain in the lateral epicondyle for at least a month Pain in cozen's test Pain in the extensor carpi radialis test (that is, resistance to the extension of the middle finger - Maudsley's test) Supination resistance test (Mill's test)

**Exclusion criteria:**

Diabetes Mellitus Cervical radiculopathy Bilateral lateral epicondylitis neuropathy Arthritis in the upper limb or a history of arthritis Bilateral lateral epicondylitis pregnancy History of forearm and elbow surgery Acute elbow trauma Allergy to Kinesiology tape Cubital tunnel syndrome Carpal tunnel syndrome autoimmune disease Rotator cuff tendonitis Local or systemic upper limb infection Fibromyalgia syndrome Medial epicondylitis of the same side An old fracture in the damaged arm Changing the shape of the elbow Coagulation diseases

**Age**

From **30 years** old to **65 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

- Care provider
- Data analyser

**Sample size**

Target sample size: **62**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Randomization is done in a simple way, individual randomization unit and using statistical software.

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

Allocation of patients to two treatment groups is done randomly using spss version 22 software. The blinding is two-way, and the main implementer of the design and the data analyzer are not aware of the order of placing people in the clinical groups.

**Placebo**

Not used

**Assignment**

Parallel

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

empty

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

Ethics committee of Isfahan University of Medical Sciences

**Street address**

Al-Zahra Hospital, Sefe Blvd, Aghareb parast highway.

**City**

Isfahan

**Province**

Isfahan

**Postal code**

8174675731

**Approval date**

2023-06-26, 1402/04/05

**Ethics committee reference number**

IR.MUI.MED.REC.1402.127

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

lateral epicondylitis

**ICD-10 code**

M77.1

**ICD-10 code description**

Lateral epicondylitis

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

Pain score

**Timepoint**

Before performing the treatment methods and in the 3rd and 8th weeks after the treatment

**Method of measurement**

Visual Analogue Scale

**2****Description**

Functional status

**Timepoint**

Before performing the treatment methods and in the 3rd and 8th weeks after the treatment

**Method of measurement**

Patient Rating Forearm Evaluation Questionnaire

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Dry needling method: The first group is treated with dry needling and exercise and a non-steroidal anti-inflammatory drug (Meloxicam 15 mg daily) for three weeks. The position is neutral. After cleaning the skin with 70% isopropyl alcohol, a needle with a size of 0.25 x 25 in the lateral epicondyle and at the point of maximum pain using the Hong fast-in-fast-out method 20 times in a specific place. It is moved for 20 seconds and the Chou technique is also used to facilitate the movement of the needle by rotating at the same time when inserting and removing the needle. This work is done twice a week for 3 weeks and a total of 6 sessions.

#### Category

Treatment - Devices

### 2

#### Description

Intervention group: Kinesio taping: The second group is treated with kinesio taping and exercise and a non-steroidal anti-inflammatory drug (Meloxicam 15 mg daily) for three weeks. We glue near the end of the muscles so that the volume of the extensor carpi radialis brevis, extensor carpi radialis longus, and extensor carpi ulnaris muscles is placed between the two arms of the glue. The beginning and end of the glue is done without tension and the middle of the glue is done with medium tension, which works with a restraining mechanism. Then we stick an I-shaped strip with a width of 5 cm and a length of 10 cm on the outer part of the elbow so that the middle stretch part of the adhesive is placed on the point of the most pain and the two sides of the adhesive are without tension, which can be removed with the space correction mechanism. Weight is applied. Then, an I-shaped band with a width of 5 cm and a length of 10 cm is attached with a medium tension from the inside of the elbow to the outside in the anatomical position of the body while the muscle is pushed outward with the fascia correction technique. During these procedures, the patient's elbow is in extension, and the wrist is in pronation, flexion, and ulnar deviation. This work is done twice a week for 3 weeks and a total of 6 sessions.

#### Category

Treatment - Devices

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**  
Al-Zahra Hospital

#### Full name of responsible person

Razieh Maghruri

#### Street address

Al-Zahra Hospital, Seife Blvd, Aghareb Parast Highway,

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### 2

#### Recruitment center

##### Name of recruitment center

Amin Hospital

##### Full name of responsible person

Razieh Maghruri

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amin@mui.ac.ir

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Esfahan University of Medical Sciences

##### Full name of responsible person

Dr. Gholamreza Asgari

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Isfahan University of Medical Sciences, Hezar Jerib Avenue

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askari@mui.ac.ir

#### Grant name

#### Grant code / Reference number

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

Yes  
**Title of funding source**  
Esfahan University of Medical Sciences  
**Proportion provided by this source**  
100  
**Public or private sector**  
Public  
**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**  
Esfahan University of Medical Sciences  
**Full name of responsible person**  
Razieh Maghruri  
**Position**  
Assistant Professor  
**Latest degree**  
Specialist  
**Other areas of specialty/work**  
Physical Medicine  
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## Person responsible for scientific inquiries

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Physical Medicine  
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## Person responsible for updating data

### Contact

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**Full name of responsible person**  
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**Street address**  
No 252, Shahid Dr.Beheshti street, Dorcheh Town  
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mozr88@yahoo.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

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

All data is potentially shareable after de-identifying individuals.

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

The access period starts 6 months after the results are published

### To whom data/document is available

It will be available only to researchers working in academic and scientific institutions.

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

There are no other conditions.

**From where data/document is obtainable**

Send the request to mozr88@yahoo.com.

**What processes are involved for a request to access**

**data/document**

After 1 month, the documents or data files will reach her or him.

**Comments**