Clinical Trial Protocol
Iranian Registry of Clinical Trials

24 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
Isfehan
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 epicondilitis
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,Sefe Blvd, Aghareb Parast Highway,

City
Isfahan

Province
Isfehan

Postal code
8174675731

Phone
+98 31 3668 5555

Email
alzahra@mui.ac.ir

2

Recruitment center

Name of recruitment center
Amin Hospital

Full name of responsible person
Razieh Maghruri

Street address
Amin Medical Education Center,Ibn Sina St, Shahada Square.

City
Isfahan

Province
Isfehan

Postal code
۸۱۴۸۶۵۳۱۴۱

Phone
+98 31 3112 2020

Email
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

Street address
Isfahan University of Medical Sciences, Hezar Jerib Avenue

City
Isfahan

Province
Isfehan

Postal code
81746-73461

Phone
+98 31 3792 3060

Email
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

Street address

Al-Zahra Hospital, Sefe Blvd., Aghareb Parast Highway

City

Isfahan

Province

Isfehan

Postal code

8174675731

Phone

+98 31 3668 5555

Email

ramaghroori@yahoo.com

Person responsible for scientific 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

Street address

Al-Zahra Hospital, Sefe Blvd., Aghareb Parast Highway

City

Isfahan

Province

Isfehan

Postal code

8174675731

Phone

+98 31 3668 5555

Email

ramaghroori@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Zahra Eshaghian dorcheh

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine

Street address

No 252, Shahid Dr.Beheshti street, Dorcheh Town

City

Isfahan

Province

Isfehan

Postal code

8431847963

Phone

+98 31 3376 2229

Fax

Email

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