

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Jul 2026

Comparison of the effectiveness of Ultrasound and Deep transverse friction massage on pain relief and grip strength in lateral epicondylitis of humerus

Protocol summary

Summary

Goal: To compare two different methods, deep transverse friction massage and Ultrasound in reducing pain and increasing Hand grip in lateral epicondylitis

Material: Patients who diagnosed of lateral epicondylitis according to examination and have duration of complain more than 6 weeks included in study. Recent trauma, injection or surgery, neck or shoulder pain, use of steroids or Nsaid's and previous history of rheumatologic disorders are exclusion criteria. Patients randomly entered to deep friction massage or ultrasound groups.

Method: Patients in deep friction massage group were treated for 5 sessions, and patients in Ultrasound group were received treatment for 10 sessions. Pain during daily activities and in resisted physical examinations using visual analog pain scale and grip strength by hand dynamo meter were measured before study and just after last session and also in later one month follow up sessions.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201101293384N6**

Registration date: **2011-11-20, 1390/08/29**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-11-20, 1390/08/29

Registrant information

Name

Ameneh Ebrahim Valoojerdi

Name of organization / entity

Endocrine research center

Country

Iran (Islamic Republic of)

Phone

+98 21 8894 5247

Email address

info@lapsurg.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tehran University of Medical Sciences

Expected recruitment start date

2011-04-04, 1390/01/15

Expected recruitment end date

2012-08-03, 1391/05/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effectiveness of Ultrasound and Deep transverse friction massage on pain relief and grip strength in lateral epicondylitis of humerus

Public title

Comparison of the effectiveness of Ultrasound and Deep transverse friction massage on pain relief and grip strength in lateral epicondylitis of humerus

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: All the patients who lateral humeral epicondylitis according to the examinations and the duration of their signs is more than 6 weeks Exclusion

criteria:Direct trauma history; previous surgical history ;previous injection history; elbow manipulation ; elbow physiotherapy in previous 6 month ;NSAID's use ; narcotics ; topical anesthetics ; photosensitivity ; generalized skin disease;rhumatoid disease ; mental disease ; pregnancy ; pacemaker

Age

No age limit

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: 50

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

The Ethics Committee of Tehran University of Medical Sciences

Street address

TUMS, Ghods St.,Keshavarz Blvd,

City

Tehran

Postal code

1417653761

Approval date

2011-06-21, 1390/03/31

Ethics committee reference number

130/1328

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

Timepoint

alternate day (5 times)

Method of measurement

visual analog scale

Secondary outcomes**1****Description**

provocative tests

Timepoint

alternative day (5 times)

Method of measurement

provocative tests

2**Description**

Grip strength

Timepoint

Each therapeutic sessions

Method of measurement

Hand dynamometer

Intervention groups**1****Description**

Intervention: deep friction massage

Category

Rehabilitation

2**Description**

control: ultrasound therapy intensity 2w/cm2 and pulse 20%

Category

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

Hazrat Rasoul Hospital

Full name of responsible person**Street address****City**

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Tehran University of Medical Sciences

Full name of responsible person

Dr. Akbar Fotuhi

Street address

Tehran University of Medical Sciences , Ghods street , Keshavarz street , Vice chancellor for research, Tehran University of Medical Sciences

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Vice chancellor for research, Tehran University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

Person responsible for general inquiries

Contact**Name of organization / entity**

Rasoul Akram Hospital

Full name of responsible person

Dr.Shahram Kharabian

Position

resident of sports medicine

Other areas of specialty/work**Street address**

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Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty