

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

02 Jul 2026

### Comparing the effect of acupuncture and medical treatment on clinical symptoms and Electromyography/Nerve Conduction Velocity (EMG/NCV) changes in patients with CTS

#### Protocol summary

##### Summary

**Objectives:** In this study, we try to compare the effect of acupuncture and medical treatment on the clinical symptoms and Electromyography/Nerve Conduction Velocity (EMG/NCV) changes in patients with carpal tunnel syndrome (CTS) referring to Imam Reza Hospital in 2012-2013. **Design:** In this interventional study, 60 patients with clinical diagnosis of CTS by a rheumatologist are randomly assigned to either the "acupuncture" or "medical treatment" groups. **Setting and conduct:** Before the study starts, both groups fill a clinical symptoms questionnaires and accordingly are evaluated by electro-diagnostic tests. Patients in the medical treatment group use a brace and receive two tablets of Celebrex 100 daily divided in morning and night for one month. The acupuncture group are referred to an acupuncture specialist to receive acupuncture treatment for one month. **Participants including major eligibility criteria:** Over 20 yrs of age; pain and tingling along the median nerve route; willing to participate in the study. **Interventions:** Acupuncture treatment is given 3 times a week (12 sessions) and each session is 30 minutes. Needle insertion points are fixed in all sessions and are 20 points. After the treatment ends, questionnaires are filled by patients again. **Main outcome measures variables:** Three months after the end of treatment, patients refer to clinic in order to fill the questionnaire and to be evaluated both for clinical symptoms (pain, tingling, parasthesia, muscle weakness and night awakening) and EMG/NCV changes.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2012122811912N1**  
Registration date: **2015-09-06, 1394/06/15**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-09-06, 1394/06/15

##### Registrant information

###### Name

Hamidreza Bahrami Taghanaki

###### Name of organization / entity

Mashhad University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 51 1841 5666

###### Email address

bahramihr@mums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice Chancellor for Mashhad University of Medical Sciences

##### Expected recruitment start date

2013-03-10, 1391/12/20

##### Expected recruitment end date

2017-03-10, 1395/12/20

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparing the effect of acupuncture and medical treatment on clinical symptoms and

Electromyography/Nerve Conduction Velocity (EMG/NCV) changes in patients with CTS

### Public title

Comparing the effect of acupuncture and medical treatment on clinical symptoms and Electromyography/Nerve Conduction Velocity (EMG/NCV) changes in patients with CTS

### Purpose

Treatment

### Inclusion/Exclusion criteria

Major eligibility criteria: Over 20 yrs of age; pain and tingling along the median nerve route; willing to participate in the study. Major exclusion criteria: Polyneuritis or lesions of the cervical radiculopathy; hypothyroidism; multiple myeloma; amyloidosis; inability to perform daily functions individually; previous acupuncture treatment or surgery for CTS; insulin dependent diabetes; pregnancy or less than 3 month post partum; epilepsy; cardiovascular disease; history of gastrointestinal disease and intolerance for NSAIDS; history of warfarin or heparin consumption or a hemorrhagic disease.

### Age

No age limit

### Gender

Both

### Phase

2-3

### Groups that have been masked

No information

### Sample size

Target sample size: 60

### 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

### 1

#### Registry name

None

#### Secondary trial Id

none

#### Registration date

empty

## Ethics committees

### 1

#### Ethics committee

### Name of ethics committee

Ethics Committee of Mashhad University of Medical Sciences

### Street address

Vice Chancellor for Research, Ghoreyshi building, Daneshgah St.,

### City

Mashhad

### Postal code

### Approval date

1991-10-02, 1370/07/10

### Ethics committee reference number

910775 (IR.MUMS.REC.1391.701)

## Health conditions studied

### 1

#### Description of health condition studied

Carpal tunnel syndrome

#### ICD-10 code

G50, G51,

#### ICD-10 code description

Nerve, nerve root and plexus disorders

## Primary outcomes

### 1

#### Description

Clinical symptoms (pain, numbness, tingling, muscle weakness and night awakening )

#### Timepoint

3 months after the intervention

#### Method of measurement

global symptom score (GSS)

## Secondary outcomes

### 1

#### Description

Changes in Electrodiagnostic tests (CMAP, DML, DSL, MNCV)

#### Timepoint

3 months after the end of intervention

#### Method of measurement

repeating the mentioned tests

## Intervention groups

### 1

#### Description

Control group: Brace and 100mg celebrex tablets, twice daily (morning and night)

#### Category

Treatment - Drugs

## 2

### Description

Intervention: Acupuncture with 0.25\*40 mm size needles on 20 acupoints , 3 times a week, each session 30 min for one month.

### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Electrodiagnostics clinic and acupuncture clinic of Imam Reza Hospital,

##### Full name of responsible person

Hosein Hasanabadi

##### Street address

Imam Reza Hospital, Taghiabad Sq., Mashhad, Iran.

##### City

Mashhad

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Vice Chancellor for Research, Mashhad University of Medical Sciences

##### Full name of responsible person

Mina Ramezani

##### Street address

Ghoreyshi Building, Daneshgah St.

##### City

Mashhad

##### 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, Mashhad 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

Mashhad University of Medical Sciences

#### Full name of responsible person

Hosein Hasanabadi

#### Position

Assistant Prof of Physical Rehabilitation medicine

#### Other areas of specialty/work

#### Street address

Physical rehabilitation Dept, Imam Reza Hospital, Taghiabad Sq., Mashhad, Iran

#### City

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## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

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#### Full name of responsible person

Hamidreza Bahrami

#### Position

Assistant Prof of acupuncture

#### Other areas of specialty/work

#### Street address

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## Person responsible for updating data

### Contact

#### Name of organization / entity

Mashhad University of Medical Sciences

#### Full name of responsible person

Hamidreza Bahrami

#### Position

Assistant Prof of Traditional and Complementary Medicine

#### Other areas of specialty/work

#### Street address

Faculty of Traditional and complementary Medicine, in front of Mehran Sport Complex, East Razi St, Dah Dey Sq., Mashhad, Iran

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## 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*