Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 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 accupuncture 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
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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 radicolopathy; 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
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Person responsible for scientific inquiries

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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