

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The comparison of the effectiveness of acupuncture and exercise therapy in patients with carpal tunnel syndrome

Protocol summary

Study aim

Comparison of short-term efficacy of acupuncture and exercise therapy in patients with mild to moderate CTS.

Design

This is a randomized controlled clinical trial study conducted on 60 patients

Settings and conduct

Imam Hossein Hospital in Tehran

Participants/Inclusion and exclusion criteria

Patients with mild to moderate CTS referring to Imam Hossein Hospital in Tehran in 2016.

Intervention groups

The patients were randomly divided into 3 equal groups (20 patients in each group; age range, 29-70 years). In the first group only night splint was used for 6 weeks (control), in the second group splint and tendon and nerve gliding exercises (2 times a day for 6 weeks) were applied, and the third group splint with electroacupuncture was performed in the PC-6 and PC-7 points for 12 sessions of 40-minute duration (2 sessions/week)

Main outcome variables

The score on the Boston Carpal Tunnel Questionnaire (BCTQ) for Functional Status and Symptom Severity (BCTQ FUNCT and SYMPT), parameters of pinch force, grip force, ROM (flexion and extension) and visual analog scale (VAS) score were evaluated at baseline and after the treatment

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180212038693N1**

Registration date: **2018-04-12, 1397/01/23**

Registration timing: **retrospective**

Last update: **2018-04-12, 1397/01/23**

Update count: **0**

Registration date

2018-04-12, 1397/01/23

Registrant information

Name

Amir Rashed

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 2303 1406

Email address

a.rashed@sbmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-05-22, 1396/03/01

Expected recruitment end date

2017-09-22, 1396/06/31

Actual recruitment start date

2017-05-22, 1396/03/01

Actual recruitment end date

2017-09-22, 1396/06/31

Trial completion date

empty

Scientific title

The comparison of the effectiveness of acupuncture and exercise therapy in patients with carpal tunnel syndrome

Public title

The effectiveness of exercise therapy and acupuncture in carpal tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Mild to moderate disease stage No severe CST Lack of extreme limitation upper extremity limbs No symptoms of atrophy and muscle dystrophy Lack of other types of peripheral neuropathy No history of carpal tunnel surgery, or any damage to the median nerve The absence of autoimmune or inflammatory diseases No history of using steroid medications No use of splint or any treatment for CTS

Exclusion criteria:

Age

From **18 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Actual sample size reached: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Permuted block randomization (based on ABC)

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

Ethics committee of Shahid Beheshti University of Medical Sciences

Street address

District 1, Daneshjou Boulevard

City

Tehran

Province

Tehran

Postal code

1983969411

Approval date

2016-06-19, 1395/03/30

Ethics committee reference number

IR.SBMU.MSP.REC.1395.152

Health conditions studied

1

Description of health condition studied

Carpal tunnel syndrome

ICD-10 code

G56.0

ICD-10 code description

Carpal tunnel syndrome

Primary outcomes

1

Description

Functional Status and Symptom Severity

Timepoint

At baseline and after the treatment (6 week)

Method of measurement

Boston Carpal Tunnel Questionnaire (BCTQ) for Functional Status and Symptom Severity (BCTQ FUNCT and SYMPT)

2

Description

Pinch and grip force

Timepoint

At baseline and after the treatment

Method of measurement

Using hydraulic dynamometer

3

Description

ROM (flexion and extension)

Timepoint

At baseline and after the treatment

Method of measurement

Inclinometer

4

Description

Pain severity

Timepoint

at baseline and after the treatment

Method of measurement

visual analog scale (VAS)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: splint with electroacupuncture

Category

Treatment - Devices

2

Description

Intervention group: splint and tendon and nerve gliding exercises

Category

Treatment - Other

3

Description

Control group: only night splint was used

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Hossein Hospital

Full name of responsible person

Amir Rashed

Street address

District 7, Imam Hossein Hospital

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1617763141

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Dr. Shahin Salehi

Street address

Daneshjou Boulevard, Shahid Shahriari Square,
Yemen Street, Shahid Chamran Highway

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?

Yes

Title of funding source

Shahid Beheshti 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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Amir Rashed

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Sport Medicine

Street address

Shahid Beheshti University, Daneshjou Boulevard,
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Chamran Highway

City

Tehran

Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available