

Clinical Trial Protocol

Iranian Registry of Clinical Trials

15 Jul 2026

The effect of acupressure on the clinical manifestations of Carpal Tunnel Syndrome (CTS)

Protocol summary

Summary

Objectives: Determine of the effect of acupressure on the clinical manifestations of Carpal Tunnel Syndrome (CTS).
Design: Double blind clinical trial. **Setting and conduct:** The intervention is performed in three groups: Routine care, acupressure, and placebo. Acupressure is performed by Sea-Band as an elastic band with a plastic button in its below. It is considered to be some sort of acupressure when the Sea-Band button is placed on the P6 (Nei guan) point on the internal surface of forearm and on the P7 (Daling) point in the inner surface of transverse groove of wrist. On the other hand, it will be considered to have a placebo effect, when the Sea-Band button is placed on the opposite of P6 (Nei guan) point and P7 (Daling) point. The routine treatment including routine treatments measures (using a splint and analgesics). **Participants:** Inclusion criteria: The age of patients is 20-70 years; Carpal tunnel syndrome be diagnosed by orthopedic specialist; Symptoms lasting more than 3 months; Having no skin problem at the close Sea-Band site. Exclusion criteria: Patients with a history of wrist or median nerve trauma; CTS that are followed pregnancy, alcoholism, systemic diseases; Patients with a history of stroke and cerebral palsy; Illiterate Patients; Obese patients; Patients with a low level of consciousness; Patients who due to intensity of disease symptoms in during the study, surgical treatment or corticosteroid injections be necessary; Patients who can not tolerate Sea-Band. **Intervention:** Interventions including routine care, use of acupressure, and placebo that are done in three groups. **Main outcome measures (variables):** Clinical manifestations of Carpal Tunnel Syndrome.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201609178717N4**

Registration date: **2016-10-24, 1395/08/03**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-10-24, 1395/08/03

Registrant information

Name

Mohammad Reza Asgari

Name of organization / entity

Semnan University of Medical Sciences and Health and Treatment Services

Country

Iran (Islamic Republic of)

Phone

+98 23 1445 3365

Email address

asgari@sem-ums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research of Semnan University of Medical Sciences

Expected recruitment start date

2016-10-22, 1395/08/01

Expected recruitment end date

2017-03-30, 1396/01/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of acupressure on the clinical manifestations of Carpal Tunnel Syndrome (CTS)

Public title

The effect of acupressure in the treatment of carpal tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: The age of patients is 20-70 years; Carpal tunnel syndrome be diagnosed by orthopedic specialist; Symptoms lasting more than 3 months; Having no skin problem at the close Sea-Band site. Exclusion criteria: Patients with a history of wrist or median nerve trauma; CTS that are followed pregnancy, alcoholism, systemic diseases; Patients with a history of stroke and cerebral palsy; Illiterate Patients; Obese patients; Patients with a low level of consciousness; Patients who due to intensity of disease symptoms in during the study, surgical treatment or corticosteroid injections be necessary; Patients who can not tolerate Sea-Band.

Age

From **20 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

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

Double blinded

Blinding description**Placebo**

Used

Assignment

Parallel

Other design features

Randomized blocks

Secondary Ids

empty

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

Ethics committee of Semnan University of Medical Sciences

Street address

Semnan University of Medical Sciences, Semnan, Semnan Province, Iran

City

Semnan

Postal code

3519899951

Approval date

2016-09-13, 1395/06/23

Ethics committee reference number

IR.SEMUMS.REC.1395.95

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**

Distal sensory latency (DSL)

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

By EMG device

2**Description**

Nerve conduction velocity (NCV)

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

By EMG device

3**Description**

Hand muscle strength (Grip power)

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

By hand-held dynamometer device

4**Description**

Clinical manifestations of Carpal Tunnel Syndrome (CTS)

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

By Boston Carpal Tunnel Questionnaire (BCTQ)

5**Description**

Pinch power

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

by Digital dynamometer Device

6

Description

Distal motor latency (DML)

Timepoint

Before the intervention in the first session and after the intervention (after a month)

Method of measurement

By EMG device

Secondary outcomes

empty

Intervention groups

1

Description

The first intervention (the use of acupuncture): In this group, acupuncture is performed for a period of one month. For applying acupuncture, the Sea-Band button is placed at all times day and night on the P6 (Nei guan) point on the internal surface of forearm to the width of 3-2 fingers up inside groove of wrist and on the P7 (Daling) point in the inner surface of transverse groove of wrist, between the tendons of palmaris longus and flexor carpi radialis. Pressure is applied so that the patient does not feel pain or discomfort. Boston Carpal Tunnel Questionnaire (BCTQ) to evaluate the clinical signs, EMG device to measure nerve conduction velocity (NCV), distal sensory latency (DSL), the distal motor latency (DML), and hand-held dynamometer device to measure grip strength (Grip power) of patients affected hand and digital dynamometer device to measure pinch strength (power Pinch) of patients affected hand fingers are used. Assessment and measurements will be done before the intervention in the first session and after the intervention (after a month). People in this group, the routine treatment (splint and analgesic drugs) will receive.

Category

Treatment - Other

2

Description

The second intervention (the use of the placebo): In this group, the placebo will be used for one month. For applying placebo, the Sea-Band button is placed at all times day and night on the external surface of patient forearm, on the opposite side the PC6 and PC7 (as a false point). Pressure is applied so that the patient does not feel pain or discomfort. Boston Carpal Tunnel Questionnaire (BCTQ) to evaluate the clinical signs, EMG device to measure nerve conduction velocity (NCV), distal sensory latency (DSL), the distal motor latency (DML), and hand-held dynamometer device to measure

grip strength (Grip power) of patients affected hand and digital dynamometer device to measure pinch strength (power Pinch) of patients affected hand fingers are used. Assessment and measurements will be done before the intervention in the first session and after the intervention (after a month). People in this group, the routine treatment (splint and analgesic drugs) will receive.

Category

Placebo

3

Description

Third intervention (routine treatment in control group): People in this group, only the routine treatment (splint and analgesic drugs) will receive. Boston Carpal Tunnel Questionnaire (BCTQ) to evaluate the clinical signs, EMG device to measure nerve conduction velocity (NCV), distal sensory latency (DSL), the distal motor latency (DML), and hand-held dynamometer device to measure grip strength (Grip power) of patients affected hand and digital dynamometer device to measure pinch strength (power Pinch) of patients affected hand fingers are used. Assessment and measurements will be done in the first session and after a month.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Orthopedic doctor's office (Dr. Parviz Ahangar)

Full name of responsible person

Saeide Sadat Mosavinejad

Street address

Parviz Ahangar doctor's office, Ghomes doctors building, Street shahid Sabaghian, Semnan, Iran

City

Semnan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research of Semnan University of Medical Sciences

Full name of responsible person

Dr. Ali Rashidy-Pour

Street address

Vice chancellor for research of Semnan University of Medical Sciences, Basij boulevard, Semnan, Iran

City

Semnan

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 of Semnan 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

Semnan University of Medical Sciences

Full name of responsible person

Dr. Mohammad Reza Asgari

Position

PhD in nursing, Faculty member

Other areas of specialty/work

Street address

Faculty of nursing and allied, Semnan University of Medical Sciences, Semnan, Iran

City

Semnan

Postal code

Phone

+98 23 3344 0758

Fax

Email

asgari5000@gmail.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Semnan University of Medical Sciences

Full name of responsible person

Dr. Mohammad Reza Asgari

Position

PhD in nursing, Faculty member

Other areas of specialty/work

Street address

Faculty of nursing and allied, Semnan University of Medical Sciences, Semnan, Iran

City

Semnan

Postal code

3514743365

Phone

+98 23 3344 0758

Fax

Email

asgari5000@gmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Semnan University of Medical Sciences

Full name of responsible person

Dr. Mohammad Reza Asgari

Position

PhD in nursing, Faculty member

Other areas of specialty/work

Street address

Faculty of nursing and allied, Semnan University of Medical Sciences, Semnan, Iran

City

Semnan

Postal code

3514743365

Phone

+98 23 3344 0758

Fax

Email

asgari5000@gmail.com

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