

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The comparison of effectiveness of two manual therapy methods on clinical and electrophysiological findings in patients with carpal tunnel syndromes

Protocol summary

Summary

The aim of this study is to examine the effects of two manual therapy methods on patients with carpal tunnel syndrome. In this study, 30 patients with CTS ranging from 18 - 55 years and with positive clinical and electrophysiological findings (mild to moderate severity) included. The participants assigned randomly into two groups. In group 1, patients received TENS, ultrasound, and manual therapy for mechanical interface structures (relaxation techniques for anterior forearm muscles, and stretching of transverse carpal ligaments, tendon glide exercise, and wrist joint mobilization). In group 2, patients received TENS, ultrasound, and manual therapy techniques for nerve mobilization. Treatment was done for 4 weeks, 3 days weekly. The electrophysiological studies and clinical examination consisting of Boston questionnaire, visual analogue scale (VAS), and median nerve tension test (MNNT) were carried out for all patients both before and after the 4 weeks intervention program

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201508182851N4**

Registration date: **2015-09-25, 1394/07/03**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2015-09-25, 1394/07/03

Registrant information

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Name of organization / entity

Babol University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Deputy for research of Babol University of Medical Sciences

Expected recruitment start date

2015-09-26, 1394/07/04

Expected recruitment end date

2016-03-19, 1394/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The comparison of effectiveness of two manual therapy methods on clinical and electrophysiological findings in patients with carpal tunnel syndromes

Public title

Conservative management of carpal tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients with CTS in the age range of 18 - 55 years from mild to moderate severity, with positive clinical findings and electrophysiological findings (median nerve distal motor latency > 4.2ms and median

nerve distal sensory latency > 3.7ms) exclusion criteria:
Positive compression test in proximal area, systemic peripheral neuropathy, history of carpal tunnel release, metabolic disorders such as diabetics or thyroid diseases, pregnancy, steroid injection in carpal tunnel, and atrophy of thenar muscles

Age

From **18 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

babol University of Medical Sciences

Street address

University sqare,keshavars street

City

Babol

Postal code

Approval date

2015-08-09, 1394/05/18

Ethics committee reference number

Mubabol.REC.1394.103

Health conditions studied

1

Description of health condition studied

carpal tunnel syndrome

ICD-10 code

G56

ICD-10 code description

Carpal tunnel syndrome

Primary outcomes

1

Description

pain intensity

Timepoint

before intervention and at the end of 4 weeks

Method of measurement

using of visual analoge scale (VAS)

2

Description

sensory distal latencies

Timepoint

before intervention and at the end of 4 weeks

Method of measurement

using of EMG device

3

Description

motor distal latencies

Timepoint

before intervention and at the end of 4 weeks

Method of measurement

using EMG device

Secondary outcomes

1

Description

Functional status scale

Timepoint

at the baseline and at the end of 4 weeks

Method of measurement

using of Boston questionnaire

2

Description

Symptome Severity Scale

Timepoint

at the baseline and at the end of 4 weeks

Method of measurement

using of Boston questionnaire

3

Description

median nerve tension

Timepoint

at the baseline and at the end of 4 weeks

Method of measurement

using of median neurodynamic test

Intervention groups

1

Description

Intervention in group 1 (manual therapy directed to mechanical interface structures): we use physical modalities (TENS, US) and various manual therapy techniques for mechanical interface structures including of wrist and finger flexors muscles relaxation, tendon glide exercise, stretching of transverse carpal ligament, and wrist joint mobilization.

Category

Rehabilitation

2

Description

Intervention in group 2 (manual therapy directed to nerve): we use physical modalities (TENS, US) and various manual therapy techniques for median nerve including sliding and tension technique.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Babol shahid beheshti hospital

Full name of responsible person

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Sponsors / Funding sources

1

Sponsor

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Full name of responsible person

Dr. Ali Bijani

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Keshavarz street, university square, babol

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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

Babol 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

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Name of organization / entity

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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