Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 (MNTT) 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

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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 criterai: 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
Dr. mohammad taghipour
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Shahid beheshti hospital, Keshvari square
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Babol Uiversity of Medical Sciences
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 Uiversity 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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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