

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of neuromobilization with splint immobilization in patients with mild to moderate carpal tunnel syndrome

#### Protocol summary

##### Summary

(1) Objective: The aim of this study is to compare two methods of neuromobilization with splint immobilization in treating patients with mild to moderate carpal tunnel syndrome. (2) Design: In this study, 60 patients with mild to moderate carpal tunnel syndrome which their disease was confirmed by physical medicine and rehabilitation specialist will be included in the study after qualifying the inclusion and exclusion criteria and obtaining the informed consent. (3) Setting and conduct: Patients will be randomly divided to groups of thirty. For randomization we will use computerized randomization with Excel software. Inclusion criterion is clinical and electrodiagnostic demonstration of mild to moderate carpal tunnel syndrome. Exclusion criteria are clinical and electrodiagnostic severe carpal tunnel syndrome, history of trauma or fracture of the wrist, history of surgical release of nerve, signs of cervical radiculopathy in C6 - C7, systemic diseases such as neuropathies, rheumatoid arthritis, hypothyroidism, diabetes mellitus and renal failure. (4) Interventions: In intervention group neuromobilization techniques will be taught to patients and they will be asked to perform them three times a day each time for three seconds in a three weeks period. On the other hand in control group, immobilization and wrist splint will be administered for three weeks. Patients in both groups will receive 25 mg Diclofenac tablet two times a day. They also will be advised to avoid doing severe activities with their hand. (5) Main outcome measures: Boston questionnaire score, hand forces and EMG-NCV findings will be evaluated before initiating the protocol and after finalizing the study at the end of the third week.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201412014641N9**

Registration date: **2015-01-10, 1393/10/20**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-01-10, 1393/10/20

##### Registrant information

###### Name

Bina Eftekharsadat

###### Name of organization / entity

Tabriz university of medical sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 41 1330 3193

###### Email address

binasadat@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for research, Tabriz University of Medical Sciences

##### Expected recruitment start date

2014-11-22, 1393/09/01

##### Expected recruitment end date

2015-01-21, 1393/11/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of neuromobilization with splint immobilization in patients with mild to moderate carpal tunnel syndrome

## Public title

Comparison of two therapeutic methods in patients with mild to moderate carpal tunnel syndrome

## Purpose

Treatment

## Inclusion/Exclusion criteria

Inclusion criterion: Clinical and electrodiagnostic demonstration of mild to moderate carpal tunnel syndrome. Exclusion criteria: Clinical and electrodiagnostic severe carpal tunnel syndrome; history of trauma or fracture of the wrist; history of surgical release of nerve; signs of cervical radiculopathy in C6 - C7; systemic diseases such as neuropathies, rheumatoid arthritis, hypothyroidism, diabetes mellitus and renal failure.

## Age

From **14 years** old to **60 years** old

## 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

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

##### Street address

Ethics committee, Tabriz University of Medical Sciences, Golgasht Street, Azadi Street, Tabriz

##### City

Tabriz

##### Postal code

#### Approval date

2014-10-20, 1393/07/28

#### Ethics committee reference number

93921

## 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

Boston questionnaire

#### Timepoint

Before study and after it

#### Method of measurement

By using Boston questionnaire

### 2

#### Description

EMG-NCV criteria

#### Timepoint

Before study and after it

#### Method of measurement

By using EMG-NCV device

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

In intervention group neuromobilization techniques will be taught to patients and they will be asked to perform them three times a day each time for three seconds in a three weeks period.

#### Category

Treatment - Other

### 2

#### Description

In control group, immobilization and wrist splint will be administered for three weeks

#### Category

Treatment - Devices

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Imam Reza Hospital

**Full name of responsible person**

Dr. Bina Eftekharsadat

**Street address**Department of Physical Medicine and rehabilitation,  
Imam Reza Hospital, Daneshgah Square, Tabriz**City**

Tabriz

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**Physical medicine and rehabilitation researches  
center**Full name of responsible person**

Dr. Seyyed Kazem Shakouri

**Street address**Department of Physical Medicine and rehabilitation,  
Imam Reza Hospital, Daneshgah Square, Tabriz**City**

Tabriz

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Physical medicine and rehabilitation researches center

**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**

Tabriz University of Medical Sciences

**Full name of responsible person**

Farzad Heidari

**Position**

Medicine student

**Other areas of specialty/work****Street address**Department of Physical Medicine and rehabilitation,  
Imam Reza Hospital, Daneshgah Square, Tabriz**City**

Tabriz

**Postal code****Phone**

+98 41 3337 3967

**Fax****Email**

farzadheydari1@gmail.com

**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**

Tabriz University of Medical Sciences

**Full name of responsible person**

Dr. Bina Eftekharsadat

**Position**Associate professor of Physical Medicine &  
rehabilitation**Other areas of specialty/work****Street address**Department of Physical Medicine and rehabilitation,  
Imam Reza Hospital, Daneshgah Square, Tabriz**City**

Tabriz

**Postal code****Phone**

+98 41 3337 3967

**Fax****Email**

binasadat@tbzmed.ac.ir

**Web page address****Person responsible for updating data****Contact****Name of organization / entity**

Tabriz University of Medical Sciences

**Full name of responsible person**

Dr. Bina Eftekharsadat

**Position**Associate professor of Physical Medicine &  
rehabilitation**Other areas of specialty/work****Street address**Department of Physical Medicine and rehabilitation,  
Imam Reza Hospital, Daneshgah Square, Tabriz**City**

Tabriz

**Postal code****Phone**

+98 41 3337 3967

**Fax****Email****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*