

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

The effect of dry needling of tenar muscles on the management of patients with carpal tunnel syndrome

Protocol summary

Study aim

The effect of dry needling of tenar muscles on the management of patients with carpal tunnel syndrome.

Design

The clinical trial with a control group, with parallel groups, randomized, single-center. The sample size is 12 patients (consist of 2 groups of 50 control and intervention).

Settings and conduct

Physiotherapy clinics, Semnan University of Medical Sciences

Participants/Inclusion and exclusion criteria

Inclusion criteria: patients who Phalen and Tinel tests are positive; patients electromyography (EMG) has a median reduction in NCV. Exclusion criteria: presence of patients with symptoms of CTS; drugs that cause neuropathy; the pregnancy and breastfeeding, history of previous surgeries or injections Astrvydal to the wrist, elbow and wrist deformity tumor.

Intervention groups

Intervention group: In the intervention group DN, DN two sessions with an interval of two days of one another, occurs. In both groups immediately after the second meeting with the re-evaluation electrodiagnostic tests of functional performance and completion of a questionnaire by volunteers Boston is repeated. To assess the reliability of the effect of treatment, all evaluations are done after two weeks. Control group: There is no intervention in the control group. In both groups immediately after the second meeting with the re-evaluation electrodiagnostic tests of functional performance and completion of a questionnaire by volunteers Boston is repeated.

Main outcome variables

The functional operations of the maximum power of pinching and groping f

General information

Reason for update

Change the sampling date

Acronym

IRCT registration information

IRCT registration number: **IRCT2016032625732N4**

Registration date: **2016-04-18, 1395/01/30**

Registration timing: **prospective**

Last update: **2020-10-02, 1399/07/11**

Update count: **1**

Registration date

2016-04-18, 1395/01/30

Registrant information

Name

Alireza Emadi

Name of organization / entity

Semnan University of Medical Sciences, Semnan, Iran

Country

Iran (Islamic Republic of)

Phone

+98 23 3345 1336

Email address

are20935@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research and Technology, Semnan University of Medical Sciences

Expected recruitment start date

2016-05-21, 1395/03/01

Expected recruitment end date

2016-10-21, 1395/07/30

Actual recruitment start date

2016-05-21, 1395/03/01

Actual recruitment end date

2016-10-21, 1395/07/30

Trial completion date

2017-01-19, 1395/10/30

Scientific title

The effect of dry needling of tenar muscles on the management of patients with carpal tunnel syndrome

Public title

The effect of dry needling thenar (thumb muscle down) the treatment of patients with trapped nerve in the wrist

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Patients who test positive Phalen and Tinel them patients in their study, electromyography (EMG) decreased median nerve conduction velocity has been confirmed Patients who evaluate trigger Myofascial trigger points in the muscles Tnarshan according to diagnostic criteria simons been confirmed

Exclusion criteria:

The existence of a disease that mimics the symptoms of CTS such as polyneuropathy, radiculopathy, cervical, thoracic outlet syndrome and double-crush syndrome There are conditions such as hyperthyroidism, gout, systemic lupus erythematosus, rheumatoid arthritis, diabetes, chronic kidney failure and acromegaly drugs that cause neuropathy is Pregnancy and lactation previous surgery or injection wrist Astrvvydal Tumors or deformities elbow and wrist are effective on carpal tunnel dimensions

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **100**

Actual sample size reached: **100**

Randomization (investigator's opinion)

N/A

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 the Semnan University of Medical sciences

Street address

Semnan, Basij Blvd, Semnan University of Medical Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Approval date

2016-02-24, 1394/12/05

Ethics committee reference number

IR.SEMUMS.REC.1394.185

Health conditions studied**1****Description of health condition studied**

dry needling of tenar muscles on the management of patients with carpal tunnel syndrome

ICD-10 code

G56.0

ICD-10 code description

Carpal tunnel syndrome

Primary outcomes**1****Description**

The functional operations of the maximum power of pinching and groping f

Timepoint

Two treatments with an interval of two days of the DN

Method of measurement

Electrodiagnostic evaluation with the tests functional performance and completion of a questionnaire Boston by volunteers

Secondary outcomes

empty

Intervention groups**1****Description**

Volunteers are randomized into two treatment groups. There is no intervention in the control group. In both groups immediately after the second meeting with the re-evaluation electrodiagnostic tests of functional performance and completion of a questionnaire by volunteers Boston is repeated. To assess the reliability of the effect of treatment, all evaluations are done after

two weeks.

Category

Prevention

2**Description**

Volunteers are randomized into two treatment groups. In the intervention group DN, DN two sessions with an interval of two days of one another, occurs. In both groups immediately after the second meeting with the re-evaluation electrodiagnostic tests of functional performance and completion of a questionnaire by volunteers Boston is repeated. To assess the reliability of the effect of treatment, all evaluations are done after two weeks.

Category

Prevention

Recruitment centers**1****Recruitment center****Name of recruitment center**

Physiotherapy clinics, Semnan University of Medical Sciences

Full name of responsible person

Dr Atefeh Aminianfar

Street address

Semnan, Basij Blvd, Vice Chancellor for Research and Technology Semnan University of Medical Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Phone

+98 23 3344 1022

Email

are20935@gmail.com

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Semnan University of Medical Sciences

Full name of responsible person

Parviz Kokhaie

Street address

Semnan, Basij Blvd, Semnan University of Medical Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Email

p_kokha@yahoo.com

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

Yes

Title of funding source

Semnan 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**

Semnan University of Medical Sciences

Full name of responsible person

Dr Atefeh Aminianfar

Position

Ph.D Physiotherapy

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

Semnan, Basij Blvd, Semnan University of Medical Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax

+98 23 3344 8950

Email

are20935@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 Atefeh Aminianfar

Position

Ph.D Physiotherapy

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

Semnan, Basij Blvd, Semnan University of Medical Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax

+98 23 3344 8950

Email

are20935@gmail.com

Web page address

Sciences

City

Semnan

Province

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax

+98 23 3344 8950

Email

are20935@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 Atefeh Aminianfar

Position

Ph.D Physiotherapy

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

Semnan, Basij Blvd, Semnan University of Medical

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

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

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

No - There is not a plan to make this available