

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jul 2026

Assessment of the effect of stretching and resistance training protocol on the consequences of carpal tunnel syndrome.

Protocol summary

Study aim

Assessment of the effect of stretching and resistance training protocol on the consequences of carpal tunnel syndrome. Determining the average score of Boston Questionnaire symptoms in both groups before and after the intervention Determining the average score of Boston Questionnaire functions in both groups before and after the intervention Determining the average total score of Boston Questionnaire in both groups before and after the intervention Determining the average score of Boston Questionnaire symptoms in both groups before the intervention Determining the average score of Boston Questionnaire symptoms in both groups after the intervention Determining the average score of Boston Questionnaire functions in both groups before the intervention Determining the average score of Boston Questionnaire functions in both groups after the intervention Determining the average total score of Boston Questionnaire in both groups before the intervention Determining the average total score of Boston Questionnaire in both groups after the intervention

Design

Randomized trial ,control group with blocks of 4

Settings and conduct

All patients with CTS referred to Imam Hossein hospital

Participants/Inclusion and exclusion criteria

Written and informed consent from the individual Age 18-70 Definitive diagnosis of CTS based on symptom Not having inflammatory and autoimmune disease Not having muscle atrophy Not having severe CTS No history of corticosteroid use

Intervention groups

Effect of stretch and strength exercise on improvement of CTS

Main outcome variables

prevention of surgery , invasive treatment in patients with CTS

General information

Reason for update

Acronym

CTS

IRCT registration information

IRCT registration number: **IRCT20220829055819N1**

Registration date: **2022-09-24, 1401/07/02**

Registration timing: **registered_while_recruiting**

Last update: **2022-09-24, 1401/07/02**

Update count: **0**

Registration date

2022-09-24, 1401/07/02

Registrant information

Name

Katayoun Mirmahdian

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 2206 9409

Email address

katayoun_mir@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-08-23, 1401/06/01

Expected recruitment end date

2023-03-20, 1401/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Assessment of the effect of stretching and resistance training protocol on the consequences of carpal tunnel syndrome.

Public title

Effect of stretch and strength exercise on carpal tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Written and informed consent from the individual
Age 18-70
Definitive diagnosis of CTS based on symptoms

Exclusion criteria:

Not having inflammatory and autoimmune disease
Not having muscle atrophy
Not having severe CTS
No history of corticosteroid use

Age

From **18 years** old to **70 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **70**

More than 1 sample in each individual

Number of samples in each individual: **1**

One hand or 2hands with CTS

Randomization (investigator's opinion)

Randomized

Randomization description

Patients will be included in the study based on the inclusion criteria, after obtaining informed consent, using the block randomization method, using the following 4 blocks, they will be divided into two groups: standard treatment group A and intervention group B. 1. AABB 2. ABAB 3. BBAA 4. BABA 5. BAAB 6. ABBA Using a random number table, one of the indexes 1 to 6 is selected, and the patients are placed in one of the groups A or B based on the selected blocks. Again, using a random number table, one of the numbers 1 to 6 is selected, and the patients are selected according to the same treatment block, A or B, and this process continues to obtain 70 patients. It is expected that 18 blocks will be selected randomly.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Shahid Beheshti University of Medical Sciences

Street address

No.15,East 32 Ave , Farjam Blvd, Resalat Square

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Tehran

Province

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Postal code

1676934411

Approval date

2022-07-25, 1401/05/03

Ethics committee reference number

IR.SBMU.MSP.REC.1401.197

Health conditions studied

1

Description of health condition studied

Carpal Tunnel Syndrome

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Hand strength

Timepoint

The beginning of the study , Monthly

Method of measurement

Hand grip , Pinch

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Stretch and Strength exercises

Category

Rehabilitation

2

Description

Control group: Using of appropriate and night splint for CTS

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Hossein hospital

Full name of responsible person

Katayoun Mirmahdian

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

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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

Shahid Beheshti 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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Shahin Salehi

Position

Professor

Latest degree

Specialist

Other areas of specialty/work

Sport Medicine

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Position

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Person responsible for updating data

Contact

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Medical Education

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Fax**Email**

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

The whole data of people can be shared after de-identifying them

When the data will become available and for how long

1402

To whom data/document is available

Sport medicine , neurologists

Under which criteria data/document could be used

for using in the future studies , in retrospective studies

From where data/document is obtainable

Katayoun Mirmahdian Phone number 09128253650

What processes are involved for a request to access data/document

Call to Katayoun Mirmahdian ,Data access in the first half of 1402

Comments