Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Evaluation of the effectiveness of periscapular trigger points deactivation on pain and disability in patients with carpal tunnel syndrome

Protocol summary

Summary

The aim of this study is to evaluates the effectiveness of periscapular trigger points deactivation on pain and disability of patients with carpal tunnel syndrome. The patients with mild to moderate carpal tunnel syndrome according to the electrodiagnostic findings, existence of trigger points in at least 2 muscles of periscapular region and age between 24 to 60 years old are included.The exclusion criteria are: history of physical therapy, surgery or steroid injection for the treatment of CTS; history of treatment for periscapular trigger points, rheumatoid arthritis and cervical disk herniation. The sample population are patients with carpal tunnel syndrome who are referred to the physiotherapy clinic of Shiraz school of rehablitation by orthopedic surgeons. The sample size is 30. patients are randomly assigned either to control or intervention groups. Both groups receive routine physical therapy including transcutaneous electrical nerve stimulation, ultrasound and hot pack.The intervention group also receive ischemic compression method for deactivation of periscapular trigger points in 10 sessions for 2 weeks. Variables including pain, grip strength, hand functional disability and sensitivity of trigger points will be measured and compared before 1st and after 10th sessions.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014071915932N6**
Registration date: **2014-08-14, 1393/05/23**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2014-08-14, 1393/05/23

Registrant information

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Alireza Motealleh
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Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences, School of Rehabilitation

Expected recruitment start date

2014-08-29, 1393/06/07

Expected recruitment end date

2014-11-03, 1393/08/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effectiveness of periscapular trigger points deactivation on pain and disability in patients with carpal tunnel syndrome

Public title

The effectiveness of manual therapy of shoulder trigger points on pain and disability in patients with carpal tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria
inclusion criteria:patients with CTS syndrome for more than 1 month; positive Tinne'sl sign at the wrist area; positive Phalen's test; mild to moderate carpal tunnel syndrome by electrodiagnostic findings; existence of trigger points in at least two periscapular muscles(teres minor& major؛ supraspinatus؛ infraspinatus؛ subscapularis؛ upper trapezius); aged between 24 to 60 years. exclusion criteria:any neuropathy such as diabetic neuropathy; thoracic outlet syndrome; cervical disk herniation; double crush syndrome(positive neck compression test); regular use of analgesics or anti-inflammatory drugs; Pregnancy; Rheumatoid Arthritis; history of physical therapy, surgery or steroid injection for the treatment of CTS; history of treatment for periscapular trigger points such as steroid injection in last 3 months; fibromyalgia; T4 syndrome.
Age
From **24 years** old to **60 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)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Shiraz University Of Medical Sciences
Street address
Shiraz University of Medical Sciences, Zand Street, Shiraz.
City
Shiraz
Postal code
71345-1987
Approval date
2014-05-22, 1393/03/01
Ethics committee reference number
CT-P-9369-6959

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
power grip
Timepoint
First and tenth session
Method of measurement
Be assessed by hand-held dynamometer

2

Description
pain
Timepoint
First and tenth session
Method of measurement
Visual analogue scale

3

Description
sensitivity of periscapular trigger points
Timepoint
First and tenth session
Method of measurement
algometry

4

Description
functional disability
Timepoint
First and tenth session
Method of measurement
DASH questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Patients in control group received 10 sessions of physical therapy at the wrist area as the following: -Therapeutic ultrasound for 3 min with a continuous 3.0 MHz applicator, ERA = 5 cm2, intensity= 1.0 W/cm2. - TENS-

Burst type with parameters (frequency = 110Hz, pulse width = 200µsec) and the size of the electrode 4* 6 for 20 min and the electrode placed on the median nerve path. - Hot pack on wrist area

Category

Rehabilitation

2

Description

Patients in intervention group received 10 sessions of physical therapy at the wrist area as the following: - Therapeutic ultrasound for 3 min with a continuous 3.0 MHz applicator, ERA = 5 cm2, intensity= 1.0 W/cm2. - TENS- Burst type with parameters (frequency = 110Hz, pulse width = 200µsec) and the size of the electrode 4* 6 for 20 min and the electrode placed on the median nerve path. - Hot pack on wrist area Deactivation of periscapular trigger points applying ischemic compression method.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

physiotherapy clinic of Shiraz School of Rehabilitation

Full name of responsible person

Mrs. katayoon Rezaee

Street address

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciense

Full name of responsible person

Dr Basir Hashemy

Street address

Shiraz University Of Medical Sciences Building, Zand Street,shiraz.

City

shiraz

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Shiraz University of Medical Sciense

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

Shiraz University of Medical Science - Rehablitation School.

Full name of responsible person

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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