

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of shockwave and low level laser in upper limb pain and function and ultra sonographic changes in bodybuilding sportsman with supraspinatus tendinitis

Protocol summary

Study aim

Comparison of a shockwave and low-level laser in upper limb pain and function and ultrasonographic changes in bodybuilding sportsman with supraspinatus tendinitis

Design

The clinical trial without a control group, with parallel groups, randomized, single-center. The sample size is 38 patients (consist of 2 groups of 19 intervention 1 and intervention 2).

Settings and conduct

Neuromuscular Rehabilitation Research Center.
Comparison of a shockwave and low-level laser in upper limb pain and function and ultrasonographic changes in bodybuilding sportsman with supraspinatus tendinitis will be performed.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Confirmation of supraspinatus tendon involvement by specialized tests; At least 3 months of pain in the affected area; No treatment of the affected area in the last 3 months. Exclusion criteria: Malignancy, history of infection of the affected area, epilepsy; Cervical radiculopathy; Recurrent pain in the shoulder and neck.

Intervention groups

Intervention group 1: Therapeutic sessions for the low-level laser group; It is done 3 times a week for a month. the patient is placed in a sitting position. The laser is applied to focus on the points that have the most tenderness. Intervention group 2: Therapeutic sessions for the shockwave group are 5 sessions per month (once every 6 days). the patient lies in a supine position and the shoulder is placed in extension and internal rotation with the elbow bent (hand behind the waist). Shockwave is then applied with gentle pressure.

Main outcome variables

Pain, Function.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20151228025732N63**

Registration date: **2021-02-11, 1399/11/23**

Registration timing: **registered_while_recruiting**

Last update: **2021-02-11, 1399/11/23**

Update count: **0**

Registration date

2021-02-11, 1399/11/23

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

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are20935@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-02-03, 1399/11/15

Expected recruitment end date

2021-08-06, 1400/05/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of shockwave and low level laser in upper limb pain and function and ultra sonographic changes in bodybuilding sportsman with supraspinatus tendinitis

Public title

Comparison of a shockwave and low-level laser in upper limb pain and function and ultrasonographic changes in bodybuilding sportsman with supraspinatus tendinitis

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Confirmation of supraspinatus tendon involvement by specialized tests At least 3 months of pain in the affected area No treatment of the affected area in the last 3 months

Exclusion criteria:

Malignancy, history of infection of the affected area, epilepsy Cervical radiculopathy Recurrent pain in the shoulder and neck

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 38

Randomization (investigator's opinion)

Randomized

Randomization description

Patients are randomly assigned to the shockwave and low-level laser treatment groups by choosing a sealed envelope.

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 Semnan University of Medical Sciences

Street address

Semnan University of Medical Sciences, Basij Blvd

City

Semnan

Province

Semnan

Postal code

3514799442

Approval date

2021-01-26, 1399/11/07

Ethics committee reference number

IR.SEMUMS.REC.1399.283

Health conditions studied

1

Description of health condition studied

Upper limb pain

ICD-10 code

G90.51

ICD-10 code description

Complex regional pain syndrome I of upper limb

Primary outcomes

1

Description

Pain

Timepoint

Before and after the intervention

Method of measurement

Visual analogue scale Questionnaire

2

Description

Function

Timepoint

Before and after the intervention

Method of measurement

Disability of Arm, Shoulder and Hand (DASH) Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: Therapeutic sessions for the low-level laser group; It is done 3 times a week for a month. the patient is placed in a sitting position. The laser is applied to focus on the points that have the most tenderness.

Category

Treatment - Devices

2

Description

Intervention group 2: Therapeutic sessions for the shockwave group are 5 sessions per month (once every 6 days). the patient lies in a supine position and the shoulder is placed in extension and internal rotation with the elbow bent (hand behind the waist). Shockwave is then applied with gentle pressure.

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Neuromuscular Rehabilitation Research Center

Full name of responsible person

Roghayeh Mohammadi

Street address

Neuromuscular Rehabilitation Research Center, Qods Blvd, Mashahir Aven.

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are20935@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Semnan University of Medical Sciences

Full name of responsible person

Parviz Kokhaei

Street address

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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

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

Roghayeh Mohammadi

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data

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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

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available