Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

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Iran (Islamic Republic of)

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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
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
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Position
Associate professor
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Person responsible for updating data

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Latest degree

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Other areas of specialty/work

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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