

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 2026

The beneficial effects of combined low level laser, ultrasound and exercise therapy on Iranian women with shoulder tendinitis: a randomized clinical trial

Protocol summary

Summary

The aim of this study was to assess the effect of combination of low level laser therapy (LLLT), ultrasound and exercise therapy on shoulder tendinitis. 62 female patients with shoulder tendinitis (35-65 years) participated in this study and were randomly assigned into 3 groups. All groups completed 10 sessions, 3 sessions per week, of treatment as following: Group A (ultrasound plus exercise), Group B (830 nm laser, ultrasound plus exercise), Group C (780nm laser, ultrasound plus exercise). Outcome measures: Clinical assessments such as pain severity through visual analogue scale (VAS), Tenderness, Functional Recovery (FR) and Manual Muscle Testing (MMT) were performed at the baseline, before treatment, and at the end of treatment. Follow-up were done, one and three months after treatment period based on the degree of recovery and satisfaction of patients.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138712101719N1**
Registration date: **2009-03-19, 1387/12/29**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2009-03-19, 1387/12/29

Registrant information

Name

khadije Otadi

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 7753 6134

Email address

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences (TUMS), Iran

Expected recruitment start date

2005-04-20, 1384/01/31

Expected recruitment end date

2007-04-20, 1386/01/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The beneficial effects of combined low level laser, ultrasound and exercise therapy on Iranian women with shoulder tendinitis: a randomized clinical trial

Public title

Effects of combined physical therapy protocols on shoulder tendonitis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Female patients with local pain in supraspinatus and /or long head of biceps tendons, painful arc in abduction movement, pain in isometric resistance and passive stretch in supraspinatus and biceps, tenderness over the involved tendons, and positive speed's sign or impingement test. Exclusion

criteria: Any history of steroid injection to the tendon, rupture of the tendons, calcification in the tendons, bursitis, previous operation in shoulder region, neck and shoulder OA and Thoracic outlet

Age

From **35 years** old to **65 years** old

Gender

Female

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **62**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Center for Medical Ethics

Street address

No 21, 4th floor, Poorsina St.

City

Tehran

Postal code

14167

Approval date

2005-01-17, 1383/10/28

Ethics committee reference number

132/8367

Health conditions studied

1

Description of health condition studied

Shoulder tendinitis

ICD-10 code

M75.2,M75.

ICD-10 code description

Bicipital tendinitis,Impingement syndrome of shoulder

Primary outcomes

1

Description

Pain

Timepoint

Before intervention, and end of 10 sessions of treatment.

Method of measurement

Visual Analogue Scale

2

Description

Tenderness

Timepoint

Before intervention, and end of 10 sessions of treatment.

Method of measurement

Manual test and palpation

3

Description

Functional movement

Timepoint

Before intervention, and end of 10 sessions of treatment.

Method of measurement

Constant-Murley score

4

Description

Muscle strength

Timepoint

Before intervention, and end of 10 sessions of treatment.

Method of measurement

Manual Muscle Testing

Secondary outcomes

1

Description

Satisfaction

Timepoint

1 and 3 months after the end of 10 sessions treatment

Method of measurement

question by phone

2

Description

Recovery of functional movement

Timepoint

1 and 3 months after the end of 10 sessions treatment

Method of measurement

question by phone

Intervention groups

1

Description

Low level Laser therapy(830nm,1 J/point) + Ultrasound (5 minutes per session at frequency of 1 MHZ and an intensity of 1 W/cm2 (Enraf sonopulse 434) + antigravity , strengthening exercise in involved muscles were administered for ten sessions

Category

Rehabilitation

2

Description

Low level Laser therapy(780 nm,1 J/point) + Ultrasound (5 minutes per session at frequency of 1 MHZ and an intensity of 1 W/cm2 (Enraf sonopulse 434) + antigravity , strengthening exercise in involved muscles were administered for ten sessions

Category

empty

3

Description

Control :Ultrasound (5 minutes per session at frequency of 1 MHZ and an intensity of 1 W/cm2 (Enraf sonopulse 434) + antigravity , strengthening exercise in involved muscles were administered for ten sessions

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Out patient clinic of Rehabilitation Faculty

Full name of responsible person

Khadije otadi

Street address

Pich e shemiran- Enghlab st.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences (Primary sponsor)

Full name of responsible person

Dr. Akbar Fotouhi

Street address

Keshvarz.BLV,Kods street.central organization of TUMS

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Tehran University of Medical Sciences (Primary sponsor)

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

Faculty of Rehabilitation

Full name of responsible person

Khadije Otadi

Position

MS PT , Post Graduate Department, Instructor

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Faculty of Rehabilitation, Tehran University of Medical Sciences, TUMS

Full name of responsible person

Dr. Mohammad Reza Hadian

Position

Ph.D. Professor, Faculty of Rehabilitation, Imam komeini Hospital

Other areas of specialty/work

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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