

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Comparison the efficacy of therapeutic laser and phonophoresis of diclofenac on latent trigger points of upper trapezius muscle on 30 female students of Tehran university of Medical Sciences

Protocol summary

Summary

Objectives: the aim of this study is to determine the effects of two therapeutic methods on myofascial trigger points of upper trapezius muscle in 30 student girls. Design: the design of this study is not blinded randomized and based on repeated measures. Setting and conduct: the Patients will randomly allocate into two groups and the treatment will be done 3 weeks and 3 times per week for each group. Participants: patients with severe pain will not include in the study and any subject with history of systemic illness or history of surgery will exclude from the study. Interventions: for phonophoresis group, pulsed ultrasound with 1 MHz, 1.5 W/cm² and using Diclofenac 1% for 5 minute will be used and for second group, the laser will be used for one minute. Main outcome measures variables: some parameters such as pain, pain pressure threshold, and lateral cervical flexion range of motion will be measured using VAS, algometer and inclinometer respectively.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201108074134N2**
Registration date: **2011-11-26, 1390/09/05**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-11-26, 1390/09/05

Registrant information

Name

Amir Ahmadi

Name of organization / entity

Rehabilitation collage of Iran university of medical science

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tehran University of Medical Sciences

Expected recruitment start date

2011-08-23, 1390/06/01

Expected recruitment end date

2012-02-20, 1390/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison the efficacy of therapeutic laser and phonophoresis of diclofenac on latent trigger points of upper trapezius muscle on 30 female students of Tehran university of Medical Sciences

Public title

Comparison the efficacy of therapeutic laser and phonophoresis of diclofenac on latent trigger points of upper trapezius muscle

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Have at least one latent myofascial

trigger point on upper trapezius muscle ; Having pain less than 3 on VAS Exclusion criteria: History of systemic disease; History of surgery in upper extremity or spine

Age

From **18 years** old to **40 years** old

Gender

Female

Phase

2

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

Ethics committee of Tehran University of Medical Sciences

Street address

Nezam St., Shahnazari AV., Madar Sq.

City

Tehran

Postal code

Approval date

2011-09-25, 1390/07/03

Ethics committee reference number

130/1265/90/ص

Health conditions studied

1

Description of health condition studied

Myofascial Trigger point

ICD-10 code

M62.9

ICD-10 code description

Disorder of muscle, unspecified

Primary outcomes

1

Description

Cervical Lateral Flexion Range of Motion

Timepoint

In each session

Method of measurement

Cervical ROM

2

Description

Pain

Timepoint

In each session

Method of measurement

Visual analogue scale

3

Description

Pain Pressure Threshold

Timepoint

In each session

Method of measurement

Algometer

Secondary outcomes

empty

Intervention groups

1

Description

phonophoresis: Dyclofenac 1% ; 1.2 W/Cm ; Freq of 1 Mega Hz (pulse) ; sata 0.2 ; Duration of 5min ; 3 weeks and 3 times per week

Category

Treatment - Other

2

Description

Laser: 830 nm; 10 mV; 5000 Hz

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Physiotherapy clinic, Tehran University of Medical Sciences

Full name of responsible person

Mrs. Amini

Street address

Nezam St., Shahnazari AV., Madar Sq.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Tehran University of Medical Sciences

Full name of responsible person

Dr. Akbar Fotohi

Street address

Gods St., Keshavarz Av., Tehran, Iran

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Vice chancellor for research, Tehran University of Medical Sciences

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**

Tehran University of Medical Sciences

Full name of responsible person

Amir Ahmadi

Position

Assistant professor/PhD

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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