

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 May 2026

Comparative evaluation of treatment effect on patients with Myofacial Pain Dysfunction Syndrome (MPDS) by low level laser therapy and Transcutaneous Electrical Nerve stimulation (TENS)

Protocol summary

Summary

The purpose of this randomized clinical trial study is the effect of two different treatment modalities on patients who referred to temporomandibular dysfunction (TMD) department of dental school of Tehran university of medical sciences. Patients with inability of mouth opening, pain history in masseter, lateral, internal pterygoid, pain history in mouth opening and closing which diagnosed by oral and maxiofacial surgeon are selected for this study. After signing the informed consent, the demographic information of patients is recorded. The patients are randomly divided to 2 groups of laser and physiotherapy. In first group, patients are treated with Transcutaneous Electrical Nerve Stimulation (TENS) 3 times a week for 10 sessions and second group with low level laser with wavelength of 810 nm in continuous mode for 10 sessions. The energy of laser for each trigger point is 2 J. the data from Questionnaire are analyzed to evaluate the satisfaction level of each treatment.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201209087680N2**

Registration date: **2012-10-11, 1391/07/20**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2012-10-11, 1391/07/20

Registrant information

Name

Nasim Chiniforush

Name of organization / entity

Laser Research Center of Dentistry

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Laser research center of dentistry

Expected recruitment start date

2012-10-06, 1391/07/15

Expected recruitment end date

2013-10-07, 1392/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative evaluation of treatment effect on patients with Myofacial Pain Dysfunction Syndrome (MPDS) by low level laser therapy and Transcutaneous Electrical Nerve stimulation (TENS)

Public title

The effect of low level laser and physiotherapy on patients with muscle spasms

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: inability of mouth opening, pain history in masseter, lateral, internal pterygoid, pain history in mouth opening and closing, headache and neckache,

clicking. Exclusion criteria: pregnancy and history of cancer.

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 20

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**

Tehran University of Medical Sciences

Street address

Tehran University of Medical sciences, Gouds Avenue

City

Tehran

Postal code**Approval date**

2012-09-05, 1391/06/15

Ethics committee reference number

63873

Health conditions studied**1****Description of health condition studied**

joint-pain syndrome

ICD-10 code

K07.6

ICD-10 code description

Temporomandibular joint-pain-dysfunction syndrome

Primary outcomes**1****Description**

Muscle stiffness

Timepoint

one week later, one month later, three month later

Method of measurement

VAS

2**Description**

stress

Timepoint

one week later, one month later, three month later

Method of measurement

VAS

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention: laser irradiation with 2J energy three times a week for 10 sessions

Category

Rehabilitation

2**Description**

TENS(transcutaneous electrical nerve stimulation) for 10 sessions

Category

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

TMJ department, School of Dentistry, Tehran University of Medical Sciences

Full name of responsible person**Street address****City**

Tehran

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Laser Research Center of Dentistry, Tehran University of Medical Sciences

Full name of responsible person

Abbas Monzavi

Street address

Qods avenue

City
Tehran

Grant name

Grant code / Reference number

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

Title of funding source
Laser Research Center of Dentistry, 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
Laser Research Center of Dentistry

Full name of responsible person
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Position
Research supervisor

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