Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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 tempromandibular dysfunction (TMD) department of dental school of Tehran university of medical sciences. Patients with inability of mouth opening, pain history in masster, lateral, internal petrygoid, 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 masster, lateral, internal petrygoid, 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
Qouds 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
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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