Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Evaluating the Effect of Low-Level Laser Therapy on pain and jaw Trismus Following Surgical Extraction of mandibular embedded wisdom teeth

Protocol summary

Study aim

Evaluating the Effect of Low-Level Laser Therapy on pain and jaw Trismus Following Surgical Extraction of mandibular embedded wisdom teeth

Design

26 patients undergoing surgery for extraction of mandibular wisdom teeth are studied. both of the third molar impacted tooth are extracted . The patient gargles for 30 seconds.All operations are performed by a surgeon using a standard and similar method. In a randomized post-jaundice operation, a jaw (left or right) portion of LLLT with a wavelength of 808 nm from the buccal and lingual 660 The nanometer is placed on the crystal line and on the other side of the placebo.

Settings and conduct

both of the third molar impacted tooth are extracted .All operations are performed by a surgeon using a standard and similar method. In a randomized post-jaundice operation, a jaw (left or right) portion LLLT with a wavelength of 808 nm from the buccal and lingual 660 The nanometer is placed on the crystal line and on the other side of the placebo .Surgery is the personal office of Dr. Saman Nasiri.

Participants/Inclusion and exclusion criteria

Patients with bilateral jaundiced mesioangular mandibular teeth have a requirement for study. Patients presenting their medical history or in the physical examination of adrenal suppression or who have used corticosteroid for more than 3 months - - Patients with TMJ inflammation and decreased Excessive open mouths are excluded from the study

Intervention groups

intervention group:26 specimens that are accidentally inflamed with low-level laser after one-side wisdom teeth surgery. control group: 26 mandibular wisdom tooth is facing the same sample of the intervention group but the placebo is excreted.

Main outcome variables

Variables are the severity of pain and maximal opening mouth.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181116041672N1**
Registration date: **2019-01-02, 1397/10/12**
Registration timing: **retrospective**

Last update: **2019-01-02, 1397/10/12**
Update count: **0**

Registration date

2019-01-02, 1397/10/12

Registrant information

Name

Aisa Mahmoody

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 66 3321 7199

Email address

docmahmoody@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-03-21, 1397/01/01

Expected recruitment end date

2018-09-06, 1397/06/15

Actual recruitment start date

2018-03-21, 1397/01/01

Actual recruitment end date

2018-09-06, 1397/06/15

Trial completion date

2018-09-22, 1397/06/31

Scientific title
Evaluating the Effect of Low-Level Laser Therapy on pain and jaw Trismus Following Surgical Extraction of mandibular embedded wisdom teeth

Public title
Evaluating the Effect of Low-Level Laser Therapy on pain and jaw Trismus Following Surgical Extraction of mandibular embedded wisdom teeth

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Patients with bilateral impacted mesioangular mandibular teeth have a candidate for entering in this study

Exclusion criteria:
Patients presenting their medical history or in the physical examination of adrenal suppression Patients who have been taking corticosteroids for more than 3 months Patients with impacted mandibular one-side wisdom teeth Patients with TMJ inflammation and reduced oral open mouth limits are excluded

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Care provider
- Investigator

Sample size
Target sample size: **26**
More than 1 sample in each individual
Number of samples in each individual: **2**
Two surgeries are performed on both sides of the mandible to remove the teeth of the wisdom
Actual sample size reached: **26**
More than 1 sample in each individual
Actual sample size in each individual: **2**
Two surgeries are performed on both sides of the mandible to remove the teeth of the wisdom

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description
Patients and the person analysing the data are unaware of which side emited LLLT and which side emited the placebo (ie, laser probe without laser output)

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Lorestan university of medical science

Street address
Kamalvand

City
Khorramabad

Province
Lorestan

Postal code
6814989468

Approval date
2018-11-05, 1397/08/14

Ethics committee reference number
IR.LUMS.REC.1397.107

Health conditions studied

1

Description of health condition studied
Extraction of embedded mandibular wisdom teeth

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
pain and trismus

Timepoint
Before and after surgery

Method of measurement
Determination of Maximal Mouth opening by Measuring the Distance Between insisors Before and After Surgery

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: We have 26 specimens with mesio-angulated bilateral dental wisdom. One side of the wisdom is selected randomly and performed by the surgeon in a standard manner. After a standard operation low-power laser with wavelength of 808 and 660 nm, the conftec brand use with the power of 2 jules per square centimeter for 16 seconds in two points on

the Suture line, and on each buccal and lingual topline, two points are displayed, and at the origin of the master at 2 points with a wavelength of 808 nm and the same The value is 16 seconds in two points

Category

Treatment - Surgery

2

Description

Control group: 26 mandibular wisdom tooth is facing the same sample of the intervention group but the placebo is excreted

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Patients referring to Dr. Saman Nasiri's personal office

Full name of responsible person

Dr. Saman Nasiri

Street address

Chaharrah Bank

City

Khorramabad

Province

Lorestan

Postal code

6814989468

Phone

+98 66 3333 8355

Email

Dr_nasiri7@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Dr.Sara sepahvandy

Street address

Shohada

City

Khorramabad

Province

Lorestan

Postal code

6814989468

Phone

+98 66 3333 8355

Email

Dr_nasiri7@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Khoram-Abad University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Persons

Person responsible for general inquiries

Contact

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Aisa Mahmoody

Position

student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

Street address

Razi

City

Khorramabad

Province

Lorestan

Postal code

6814989468

Phone

+98 66 3321 7199

Email

docmahmoody@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Dr Saman Nasiri

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

Street address

Razi

City

Khorramabad

Province

Lorestan

Postal code

6814989468

Phone

+98 66 3333 8355

Email

dr_nasiri7@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Aisa Mahmoody

Position

student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

Street address

Razi

City

Khorramabad

Province

Lorestan

Postal code

6814989468

Phone

+98 66 3321 7199

Email

docmahmoody@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Dissatisfaction patients

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

Not applicable

Title and more details about the data/document

How to do research, type of sampling, surgical method and statistical method

When the data will become available and for how long

It is possible at any time

To whom data/document is available

All researchers have access to data

Under which criteria data/document could be used

All researchers have access to data

From where data/document is obtainable

All researchers have access to data

What processes are involved for a request to access data/document

There is no particular process

Comments