

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of Low Level Laser Therapy (LLLT) for Pain Reduction After Implant Surgery

Protocol summary

Summary

aim: pain reduction is the main purpose after different surgeries specially implant surgery. the aim of this study is evaluation of pain reduction after low level diode laser therapy after implant surgery. design: clinical trial , double blind, split mouth, control with laser-like device method and material: inclusive factor is all patients who referring to the to the Department of Oral and Maxillofacial Surgery of Implant Researches Center, Islamic Azad University, dental branch, Tehran, Iran, and require at least 2 implant in the same jaw bilaterally . Exclusion criteria involved patients with systemic problems that can affect on implant surgery. after selection 22 patients, they will be divided to 2 groups as control and target. in the target group after implant surgery a single dose of 6-5 j/Implant diode laser with 980 nm wavelength will be applied. In the control group just will be done laser- like application. then pain relief after anesthesia clearing at 24h,48h, 72h and up to complete pain relief will be evaluated.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017011932054N1**

Registration date: **2017-03-17, 1395/12/27**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-03-17, 1395/12/27

Registrant information

Name

Donya Sadat Mahoutchi

Name of organization / entity

Implant Researches Center, Islamic Azad University,
Dental Branch, Tehran, Iran

Country

Iran (Islamic Republic of)

Phone

+98 21 7787 5716

Email address

dent2sm@gmail.com

Recruitment status

Recruitment complete

Funding source

individual

Expected recruitment start date

2017-04-04, 1396/01/15

Expected recruitment end date

2017-05-22, 1396/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Low Level Laser Therapy (LLLT) for Pain
Reduction After Implant Surgery

Public title

Effect of laser therapy on the pain after implant surgery

Purpose

Treatment

Inclusion/Exclusion criteria

inclusive factor is all patients who referring to the to the Department of Oral and Maxillofacial Surgery of Implant Researches Center, Islamic Azad University, dental branch, Tehran, Iran, and require at least 2 implant in the same jaw bilaterally . Exclusion criteria involved patients with systemic problems that can affect on implant surgery

Age

No age limit
Gender
Both
Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **44**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Used
Assignment
Parallel
Other design features
patient and the controller won't know which samples were under laser radiation because in the control group we just will pretend to laser radiation.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Islamic Azad University, Dental Branch
Street address
10th Neyestan st, Pasdaran Avenue
City
Tehran
Postal code
Approval date
2016-12-20, 1395/09/30
Ethics committee reference number
IR.IAU.DENTAL.REC.1395, 20

Health conditions studied

1

Description of health condition studied
pain after dental implant surgery
ICD-10 code
W90
ICD-10 code description
Exposure to other nonionizing radiation

Primary outcomes

1

Description

pain
Timepoint
24h, 48h, 72h, up to complete pain relief
Method of measurement
visual analogue scale

Secondary outcomes

empty

Intervention groups

1

Description

in the target group after implant surgery a single dose of 6-5 j/Implant diode laser with 980 nm wavelength will be applied. In the control group just will be done laser- like application.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center
Implant Researches Center, Islamic Azad University,
Dental Branch, Tehran, Iran.
Full name of responsible person
Street address
City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Implant Researches Center
Full name of responsible person
Donya Sadat Mahoutchi
Street address
Implant Researches Center, Islamic Azad University,
Dental Branch, 10th Neyestan st, Pasdaran Avenue .
City
tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Implant Researches Center
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**

Implant Researches Center

Full name of responsible person

Donya Sadat Mahoutchi

Position

Dentistry Student

Other areas of specialty/work**Street address**

Islamic Azad University, Dental Branch, 10th
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Postal code**Phone**

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Fax**Email**

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Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Associate Professor, Periodontics Department, Islamic
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Full name of responsible person

Fatemeh Sarlati

Position

periodontics

Other areas of specialty/work**Street address**

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City

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Fax**Email**

f_sarlati@dentaliau.ac.ir

Web page address**Person responsible for updating data****Contact****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