Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

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

Protocol summary

Summary

aim: pain reduction is the main porpuse after different surgeries specially implant surgery. the aim of this study is evaluation of pain reduction after low level diod 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)

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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 releif

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
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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