

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

evaluation of the effect of low level Laser therapy (diode) on Postoperative Pain Following undisplaced Flap Surgery

Protocol summary

Summary

The purpose of this study is to evaluate the effectiveness of low level Laser therapy (diode) on Postoperative Pain Following undisplaced Flap Surgery. This study is a randomized clinical trial with Split mouth design. 30 patients with bilateral periodontal pockets between 5 and 7 mm with undisplaced flap surgery indication will be selected. inclusion criteria are healthy patients with no systemic disease and plaque index $\geq 10\%$. smokers and patients with long term antibiotic or steroidal therapy were excluded from study. all surgeries are performed by one surgeon with one month interval. During periodontal flap surgery in the test site diode laser 940 nm with a power of 0.5W for 112 seconds will be irradiate to all surface of the flap, the exposed bone and exposed root surfaces. .In control group laser irradiation done by off power mode. One non steroidal anti inflammatory medication (Gelofen 400mg) was prescribed immediately post surgery and after that patients were asked to take capsule whenever they feel pain and record number of capsule at the end of each day. Patients record postoperative pain daily at night time for one week using a visual analogue scale(0 to 10).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015101724573N1**
Registration date: **2016-02-22, 1394/12/03**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-02-22, 1394/12/03

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Mazandaran University of Medical Sciences

Expected recruitment start date

2015-11-11, 1394/08/20

Expected recruitment end date

2016-02-20, 1394/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

evaluation of the effect of low level Laser therapy (diode) on Postoperative Pain Following undisplaced Flap Surgery

Public title

effect of low level laser therapy on Postoperative Pain Following gingival Surgery

Purpose

Supportive

Inclusion/Exclusion criteria

inclusion criteria: patients with 5 to 7 mm periodontal pockets in same teeth in two quadrant of jaw (needed to treat with undisplaced flap) exclusion criteria: systemic disease, smokers, pregnant woman, long term antibiotic

or steroid therapy

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 60

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

mazandaran university of medical science

Street address

mazandaran university of medical science, emam square, sari, IRAN

City

sari

Postal code

Approval date

2015-08-03, 1394/05/12

Ethics committee reference number

IR.MAZUMS.REC.94-1655

Health conditions studied

1

Description of health condition studied

periodontitis

ICD-10 code

k05.3

ICD-10 code description

Chronic periodontitis

Primary outcomes

1

Description

Pain

Timepoint

every night for a week

Method of measurement

Based on the visual analogue scale of the questionnaire and the number of analgesic consumption

Secondary outcomes

empty

Intervention groups

1

Description

Test group: diode laser(wave length: 940 nm, power: 0.5 W, time of irradiation: 112s, distance: 3mm) will be applying during the surgery to all of flap surface, internal and external surface, exposed bone and exposed root structures.

Category

Other

2

Description

control group:after surgery laser irradiated by off power mode.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Dentistry, Mazandaran University of Medical Sciences

Full name of responsible person

Dr Maziar Khatami, Assistant Professor, Department of Periodontics

Street address

Faculty of Dentistry, University of Medical Sciences, near Tooba clinic, Khazar Square, Sari, IRAN

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mazandaran University of Medical Sciences

Full name of responsible person

Dr Farhad Sobouti, Research Assistant

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Faculty of Dentistry, University of Medical Sciences, near Tooba clinic, Khazar Square, Sari, IRAN

City

sari
Grant name
/
Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Mazandaran 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
Faculty of Dentistry, Mazandaran University of Medical Sciences
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Periodontologist, Assistant Professor, Department of Periodontics
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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