

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jul 2026

Investigating the effect of low level laser therapy on pain in patients with dry socket in comparison to the conventional method

Protocol summary

Summary

Investigating the effects of LLLT in pain reduction and the improvement of the healing process in patients with Alveolar Osteitis in comparison to the conventional methods. Non-blind randomized clinical trial, Single-center, control group with conventional therapy. The study population of 16 patients, Inclusion criteria: dry socket without taking any previous treatment. Criteria for diagnosis of dry socket is the pain after tooth extraction in the extraction area and around it which is growing in next three days and is along with the full or partial breakdown of clots. Exclusion criteria: history of radiation therapy in the past. Use of antibiotics, pregnancy and breast feeding. Also patients who smoke, patients who are in the menstrual cycle and take oral contraceptive medicines. In control group, the extraction area is washed out with sterile Saline solution and covered with Zinc Oxide Eugenol pack. This treatment is repeated up to three sessions and every other day. In the intervention group, the patients are irradiated with a low level laser in a "continuous Mode" with a wavelength of 808 nm and a power of 100 mW. Laser is radiated for 60 seconds with a distance of approximately 1 cm from the wound and in a perpendicular way. This treatment is also repeated up to three sessions and every other day. Pain measurement: before and after the treatment sessions with VAS (Visual Analogue Scale)

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015051722299N1**
Registration date: **2015-06-27, 1394/04/06**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-06-27, 1394/04/06

Registrant information

Name

Elaheh Aghababarangraz

Name of organization / entity

Faculty of Dentistry at Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 8801 5950

Email address

e-rangraz@student.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences

Expected recruitment start date

2015-06-05, 1394/03/15

Expected recruitment end date

2016-03-05, 1394/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effect of low level laser therapy on pain in patients with dry socket in comparison to the conventional method

Public title

Investigating the effect of laser in the treatment of dry socket

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria is the previous diagnosis of dry socket without taking any previous treatment. The criteria for the diagnosis of dry socket is the pain after tooth extraction in the extraction area and around it which is growing in next three days and is along with the full or partial breakdown of clots. Items that are excluded from the study include the past history of radiation therapy, any medical problem that may affect the treatment of dry socket (such as the pathological state of bone, vascular and hematologic diseases and diabetes mellitus), and the use of antibiotics, pregnancy and breast-feeding. Also, patients who smoke, who are in the menstrual cycle and those who take oral contraceptive medicines.

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 16

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

Ethics Committee of Tehran University of Medical Sciences

Street address

Department of Educational Research at Tehran University of Medical Sciences, Ghods St., Keshavarz Blvd, North Kargar St.

City

Tehran

Postal code

14399-55991

Approval date

2015-06-16, 1394/03/26

Ethics committee reference number

IR.TUMS.REC.1394.56

Health conditions studied

1

Description of health condition studied

dry socket

ICD-10 code

K10.3

ICD-10 code description

Alveolar osteitis

Primary outcomes

1

Description

pain

Timepoint

Before the treatment, before and after each treatment session, which takes place every other day.

Method of measurement

VAS (Visual Analogue Scale)

Secondary outcomes

1

Description

The number of analgesic tablets

Timepoint

Before the treatment and after each treatment session, which takes place every other day

Method of measurement

The number of tablets consumed is calculated according to the questionnaire filled out by the patient.

Intervention groups

1

Description

In the intervention group, the patients are irradiated with a low level laser in a "continuous Mode" with a wavelength of 808 nm and a power of 100 mW. Laser is radiated for 60 seconds with a distance of approximately 1 cm from the wound and in a perpendicular way. This treatment is also repeated up to three sessions and every other day.

Category

Treatment - Devices

2

Description

In control group, the extraction area is wash out with sterile Salin solution and cover with Zinc Oxide Eugenol pack. This treatment is repeated up to three sessions and every other day.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Dentistry at Tehran University of Medical Sciences

Full name of responsible person

Elaheh Aghababarangraz

Street address

Faculty of Dentistry at Tehran University of Medical Sciences , before the entrance of Hakim highway , North Karegar St.

City

Tehran

Student

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

Faculty of Dentistry at Tehran University of Medical Sciences , before the entrance of Hakim highway , North Karegar St.

City

Tehran

Postal code

14399-55991

Phone

+98 21 8801 5950

Fax

+98 21 8801 5951

Email

E-rangraz@student.tums.ac.ir

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Faculty of Dentistry at Tehran University of Medical Sciences

Full name of responsible person

Dr. Amirreza Rokn

Street address

Faculty of Dentistry at Tehran University of Medical Sciences , before the entrance of Hakim highway , North Karegar St.

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Vice Chancellor for research of Faculty of Dentistry at 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

Faculty of Dentistry at Tehran University of Medical Sciences

Full name of responsible person

Elaheh Aghababarangraz

Position

Person responsible for scientific inquiries

Contact

Name of organization / entity

Faculty of Dentistry at Tehran University of Medical Sciences

Full name of responsible person

Dr. Alireza Parhiz

Position

assistant professor

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

Faculty of Dentistry at Tehran University of Medical Sciences , before the entrance of Hakim highway , North Karegar St.

City

Tehran

Postal code

14399-55991

Phone

+98 21 8801 5950

Fax

+98 21 8801 5951

Email

Alirezaparhiz@gmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Faculty of Dentistry at Tehran University of Medical Sciences

Full name of responsible person

Elaheh Aghababarangraz

Position

Student

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

Faculty of Dentistry at Tehran University of Medical Sciences , before the entrance of Hakim highway , North Karegar St.

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+98 21 8801 5950

Fax

+98 21 8801 5951

Email

E-rangraz@student.tums.ac.ir

Web page address

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