

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

Clinical evaluation of the effect of LANAP (Laser Assisted New Attachment Procedure) using Nd-YAG laser as an adjacent treatment in management of patients with chronic periodontitis

Protocol summary

Study aim

This trial aimed at assessment of clinical effectiveness of LANAP (laser assisted new attachment procedure) as an adjacent treatment to phase one in reducing periodontal pocket depths in patients diagnosed with chronic periodontitis

Design

The split-mouth double-masked placebo-controlled randomized clinical trial on 20 patients

Settings and conduct

This study is conducted in dental school of and Laser Research Center of Tehran University of Medical Sciences. This study is double blind as patients and the examiner are unaware of control and test sites.

Participants/Inclusion and exclusion criteria

Patients diagnosed with chronic periodontitis with at least 2 site with 4 mm or more probing depth are included; while those with systemic conditions affecting healing procedure, over contoured restorations, smokers, pregnant and lactating women and those who have taken antibiotics within the last month were excluded.

Intervention groups

Phase one will be accomplished for all the patients by a blinded practitioner. Oral Hygiene Indices (OHI) including Full Mouth Plaque Score (FMPS) , Full Mouth Bleeding Score (FMBS) , Periodontal Pocket Depth (PPD) , Clinical Attachment Loss (CAL) , Recession are recorded in 6 sites as baseline information. After random allocation, control group will undergo merely root debridement , however test group will receive LANAP as an adjacent treatment. Patients will be recalled every month until 6 months. OHI will be measured in every follow-up visit.

Main outcome variables

decrease In probing depth

General information

Reason for update

Due to end of clinical trial and update the information

Acronym

IRCT registration information

IRCT registration number: **IRCT20170827035937N2**

Registration date: **2018-02-01, 1396/11/12**

Registration timing: **retrospective**

Last update: **2020-06-15, 1399/03/26**

Update count: **1**

Registration date

2018-02-01, 1396/11/12

Registrant information

Name

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8899 4824

Email address

n-hakimiha@farabi.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-12-30, 1396/10/09

Expected recruitment end date

2018-02-01, 1396/11/12

Actual recruitment start date

2017-12-22, 1396/10/01

Actual recruitment end date

2018-01-21, 1396/11/01

Trial completion date

2019-03-30, 1398/01/10

Scientific title

Clinical evaluation of the effect of LANAP (Laser Assisted New Attachment Procedure) using Nd-YAG laser as an adjacent treatment in management of patients with chronic periodontitis

Public title

Evaluation of laser therapy in chronic periodontitis treatment

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Amongst patients referred to periodontics department of dental school of Tehran University of Medical Sciences those who are diagnosed with chronic periodontitis with 4 mm and more probing depth and willing to participate

Exclusion criteria:

those with systemic conditions affecting healing procedure, smokers, pregnant women and those who are breast feeding and those who have taken antibiotics within the last month and sites with over contoured restorations are ruled in.

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Investigator
- Outcome assessor

Sample size

Target sample size: **30**

Actual sample size reached: **20**

Randomization (investigator's opinion)

Randomized

Randomization description

simple randomization , random numbers table

Blinding (investigator's opinion)

Double blinded

Blinding description

patient, main investigator and analyser

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

1

Registry name

Clinical trials.gov

Secondary trial Id

NCT03365167

Registration date

2017-12-05, 1396/09/14

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tehran University of Medical Sciences

Street address

4th floor,No:23, 16 Azar street,Keshavarz Blv.

City

Tehran

Province

Tehran

Postal code

1417863181

Approval date

2018-01-24, 1396/11/04

Ethics committee reference number

IR.TUMS.DENTISTRY.REC.1396.4321

Health conditions studied

1

Description of health condition studied

Chronic periodontitis

ICD-10 code

K05.32

ICD-10 code description

Chronic periodontitis, generalized

Primary outcomes

1

Description

Periodontal pocket depth

Timepoint

Measurement is done before intervention and 1 , 3 and 6 months after LANAP

Method of measurement

O Michigan Periodontal Probe with Williams markings

Secondary outcomes

1

Description

Clinical Attachment Level

Timepoint

Before intervention and 1 , 3 and 6 months after LANAP

Method of measurement

O Michigan Periodontal Probe with Williams Markings

Intervention groups

1

Description

Intervention group: Scaling and Root planning+LANAP

Category

Treatment - Other

2**Description**

Control group: Scaling and Root planning without LANAP

Category

Placebo

Recruitment centers1**Recruitment center****Name of recruitment center**

Dental School of Tehran University of Medical Sciences

Full name of responsible person

Neda Moslemi

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Dental School of Tehran University of Medical Sciences , North Kargar St. Tehran

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Sponsors / Funding sources1**Sponsor****Name of organization / entity**

dentistry research institute, tehran university of medical sciences.

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

Yes

Title of funding source

dentistry research institute, tehran university of medical sciences.

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Tehran University of Medical Sciences

Full name of responsible person

neda moslemi

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Person responsible for updating data**Contact****Name of organization / entity**

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

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

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

periodontal index

When the data will become available and for how long

starting 3 months after publication

To whom data/document is available

people working in academic institutions or people working in businesses

Under which criteria data/document could be used

related research or business interest field

From where data/document is obtainable

Email to responsible person of the study

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

Email to responsible person of the study with details of their request and their CV

Comments