Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 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 periodontits

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 bind 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 periodontits

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 centers

1

Recruitment center
Name of recruitment center
Dental School of Tehran University of Medical Sciences
Full name of responsible person
Neda Moslemi
Street address
Dental School of Tehran University of Medical Sciences , North Kargar St. Tehran
City
Tehran
Province
Tehran
Postal code
1439955991
Phone
+98 21 8801 5950
Email
neda_moslemi@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
dentistry research institute, tehran university of medical sciences.
Full name of responsible person
Neda Moslemi
Street address
Dental School of Theran University of Medical Sciences , North Kargar St.
City
Tehran
Province
Tehran
Postal code
1439955991
Phone
+98 21 8801 5950
Email
neda_moslemi@yahoo.com
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
Street address
NOrth kargar street, dental faculty of medical sciences
City
Tehran
Province
Tehran
Postal code
1439955991
Phone
+98 21 4279 4342
Email
neda_moslemi@yahoo.com

Person responsible for scientific 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
Street address
North kargar, dental faculty of medical sciences
City
Tehran
Province
Tehran

Postal code
1439955991
Phone
+98 21 4279 4342
Email
neda_moslemi@yahoo.com

Person responsible for updating data

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
Street address
north kargar st. dental faculty of tehran medical university
City
Tehran
Province
Tehran
Postal code
1439955991
Phone
+98 21 4279 4342
Email
neda_moslemi@yahoo.com

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