

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Clinical assessment of "Er, Cr: YSGG Laser" and "scaling and Root planning" in the Treatment of Patients with Mild to Moderate Periodontitis: A Randomized Clinical Trial

Protocol summary

Study aim

Evaluation of clinical parameters following application of Er-YAG laser in comparison with ultrasonic method for scaling and root planning.

Design

A randomized controlled clinical trial with parallel double blinded groups

Settings and conduct

15 Patients will be randomly selected from the periodontics department of Zahedan University of Medical Sciences. SRP treatment will be performed for both half-jaws of patients. Then the laser will be used on the intervention side. because of blinding of the participant, the laser will be turned off for control side. One and three months after treatment the parameters: plaque index - probing depth - BOP - CAL and gingival resection rate will be performed by an unaware person from intervention side.

Participants/Inclusion and exclusion criteria

No systemic disease - no pregnancy and lactation - no tobacco products Consumption - no systemic antibiotic use at least 6 months before, during and 12 months after treatment

Intervention groups

In the control group, patients receive only SRP treatment. In the intervention group, patients are treated with SRP and laser.

Main outcome variables

plaque index; Bleeding of probing; Clinical attachment loss; Probing depth; Gingival recession

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180122038475N2**

Registration date: **2019-10-12, 1398/07/20**

Registration timing: **registered_while_recruiting**

Last update: **2019-10-12, 1398/07/20**

Update count: **0**

Registration date

2019-10-12, 1398/07/20

Registrant information

Name

somaye ansarimoghadam

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 54 3344 1814

Email address

ansarimoghadam@zaums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-09-23, 1398/07/01

Expected recruitment end date

2019-11-22, 1398/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Clinical assessment of "Er, Cr: YSGG Laser" and "scaling and Root planning" in the Treatment of Patients with Mild to Moderate Periodontitis: A Randomized Clinical Trial

Public title

Comparison Effects of Er,Cr:YSGG laser and SRP in the Treatment of Patients with Mild to Moderate Periodontitis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age between 20 to 40 years mild to moderate periodontitis

Exclusion criteria:

any kind of Systemic diseases Pregnancy and lactation Tobacco consumption Use antibiotics from 6 months ago to 12 months after treatment

Age

From **20 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor

Sample size

Target sample size: **15**

More than 1 sample in each individual

Number of samples in each individual: **2**

The study is split mouth and each patient's half-jaw is considered as a sample.

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

In this split mouth study , SRP Treatment will done by ultrasonic device for both half-jaw of each patients. Laser application will done for intervention half-jaw and for control side the laser will be off . Evaluation of patients in subsequent sessions will done by a person who is unaware of control and intervention.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Zahedan University of Medical Sciences

Street address

ZaUMS Main campus, Jenat Boulevard., Zahedan, Sistan and Baluchestan, Iran

City

Zahedan

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Sistan-va-Balouchestan

Postal code

9816743463

Approval date

2019-07-30, 1398/05/08

Ethics committee reference number

IR.ZAUMS.REC.1398.184

Health conditions studied

1

Description of health condition studied

Chronic periodontitis

ICD-10 code

K05.3

ICD-10 code description

Chronic periodontitis

Primary outcomes

1

Description

Plaque index

Timepoint

Before treatment - 1 month after treatment - 3 month after treatment

Method of measurement

Clinical evaluation

2

Description

Bleeding on probing

Timepoint

Before treatment - 1 month after treatment - 3 month after treatment

Method of measurement

Clinical evaluation

3

Description

Attachment loss

Timepoint

Before treatment - 1 month after treatment - 3 month after treatment

Method of measurement

Clinical evaluation

4

Description

Gingival recession

Timepoint

Before treatment - 1 month after treatment - 3 month after treatment

Method of measurement

Clinical evaluation

5

Description

Probing depth

Timepoint

Before treatment - 1 month after treatment - 3 month after treatment

Method of measurement

Clinical evaluation

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Scaling and root planning and laser radiation

Category

Treatment - Devices

2

Description

Control group: Scaling and root planning without laser radiation

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Zahedan University of Medical Sciences

Full name of responsible person

Somaye Ansari Moghadam

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College of dentistry , Eastern Azadegan St. , Zahedan City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Zahedan University of Medical Sciences

Full name of responsible person

Dr. Nourmohammad Bakhshani

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nmbakhsha@zdmv.ac.ir

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Zahedan 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

Zahedan University of Medical Sciences

Full name of responsible person

Nadia Taheri

Position

Dentistry student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

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Name of organization / entity

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Full name of responsible person

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Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

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Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

no more information

Study Protocol

Undecided - It is not yet known if there will be a plan to
make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

Undecided - It is not yet known if there will be a plan to
make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to
make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to
make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to
make this available

Person responsible for updating data

Contact

Name of organization / entity

Zahedan University of Medical Sciences

Full name of responsible person

Nadia Taheri

Position

Dentistry Student

Latest degree

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