

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

16 Jul 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

#### **Province**

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

##### Street address

College of dentistry , Eastern Azadegan St. , Zahedan City

##### City

Zahedan

##### Province

Sistan-va-Balouchestan

##### Postal code

9817699693

##### Phone

+98 54 3344 1814

##### Email

ansarimoghadam@zaums.ac.ir

## Sponsors / Funding sources

### 1

#### Sponsor

#### Name of organization / entity

Zahedan University of Medical Sciences

#### Full name of responsible person

Dr. Nourmohammad Bakhshani

#### Street address

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

#### City

Zahedan

#### Province

Sistan-va-Balouchestan

#### Postal code

9816743463

#### Phone

+98 54 3342 5765

#### Email

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

##### Street address

College of dentistry , Eastern Azadegan St. Zahedan city

##### City

Zahedan

##### Province

Sistan-va-Balouchestan

##### Postal code

9817699693

##### Phone

+98 54 3329 5715

##### Email

nadia.taheri20@gmail.com

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

Zahedan University of Medical Sciences

**Full name of responsible person**

Somaye Ansari Moghadam

**Position**

Associate professor

**Latest degree**

Specialist

**Other areas of specialty/work**

Dentistry

**Street address**

East Azadegan St. - Kooye Tir Andazi - Zahedan  
College of Dentistry

**City**

Zahedan

**Province**

Sistan-va-Balouchestan

**Postal code**

9817699693

**Phone**

+98 54 3329 5715

**Email**

ansarimoghadam@zaums.ac.ir

**Other areas of specialty/work**

Dentistry

**Street address**

College of dentistry , Eastern Azadegan St. Zahedan  
city

**City**

Zahedan

**Province**

Sistan-va-Balouchestan

**Postal code**

9817699693

**Phone**

+98 54 3329 5715

**Email**

nadia.taheeri20@gmail.com

## 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**

A Level or less