

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### Comparative efficacy of desensitizing gel(sensikin) and Nd:Yag laser in comparison with placebo for treatment of dentine hypersensitivity

#### Protocol summary

##### Summary

This randomized single blind placebo controlled clinical trial will be conducted to assess the efficacy of laser and gel in comparison with placebo in reducing the pain in patients who suffer from dentine hypersensitivity. The patients who have more than 1 month dentinal hypersensitivity and did not use other hypersensitivity methods will be recruited. We will exclude the pregnant women to avoid the probable side effects of laser; non-vital teeth, cracked teeth, deep restorations and crown and abutments, are other criteria for exclusion. Twenty patients each have at least six teeth (120 tooth) with chronic hypersensitive teeth are being selected. In each patient 6 teeth will be randomly allocated into three intervention; first group will receive Nd:YAG laser (1W, 10Hz, 60s, two times); for second intervention, desensitizing gel (sensikin) administration and in the third group as control group without any active treatment, will be treated with laser device while it was off as placebo. Main study outcome is pain and its assessment is by visual analogue scale (VAS) after stimulation of sensitive tooth by using the sharp tip of explorer or a manual air blower. The measurements will be at: before treatment, immediately after the treatment, 1 week, 1 month, 3 months and 6 months after treatment. The effect of each intervention on pain reduction will be compared with control group.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201104104877N5**  
Registration date: **2011-04-28, 1390/02/08**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2011-04-28, 1390/02/08

##### Registrant information

###### Name

Jaber Yaghini

###### Name of organization / entity

Isfahan University of Medical Sciences and Health Services

###### Country

Iran (Islamic Republic of)

###### Phone

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###### Email address

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##### Recruitment status

###### Recruitment complete

##### Funding source

Vice chancellor for research, Faculty of Dentistry, Isfahan University of Medical Sciences

##### Expected recruitment start date

2010-11-22, 1389/09/01

##### Expected recruitment end date

2011-03-20, 1389/12/29

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparative efficacy of desensitizing gel(sensikin) and Nd:Yag laser in comparison with placebo for treatment of dentine hypersensitivity

##### Public title

Comparative efficacy of gel and laser for treatment of dentine hypersensitivity

##### Purpose

Treatment

### **Inclusion/Exclusion criteria**

Inclusion criteria: Having dentine hypersensitivity more than one month Not using other hypersensitivity methods such as toothpastes or tubules sealers

Exclusion criteria: Pregnancy Non-vital teeth, cracked teeth, deep restorations, crown and abutments .

### **Age**

No age limit

### **Gender**

Both

### **Phase**

N/A

### **Groups that have been masked**

No information

### **Sample size**

Target sample size: 120

### **Randomization (investigator's opinion)**

Randomized

### **Randomization description**

### **Blinding (investigator's opinion)**

Single blinded

### **Blinding description**

### **Placebo**

Used

### **Assignment**

Parallel

### **Other design features**

## **Secondary Ids**

empty

## **Ethics committees**

### 1

#### **Ethics committee**

##### **Name of ethics committee**

Research Chancellery Of Isfahan Faculty Of Dentistry

##### **Street address**

Isfahan Faculty Of Dentistry

##### **City**

Isfahan

##### **Postal code**

8174673461

#### **Approval date**

2010-08-01, 1389/05/10

#### **Ethics committee reference number**

389218

## **Health conditions studied**

### 1

#### **Description of health condition studied**

Dentinal Hyper sensitivity

#### **ICD-10 code**

k08.9

#### **ICD-10 code description**

Disorder of teeth and supporting structures, unspecified

## **Primary outcomes**

### 1

#### **Description**

Pain

#### **Timepoint**

Before Treatment ,Immediately after, one week, one month ,3 months and 6 months after intervention.

#### **Method of measurement**

Visual Analogous Scale(VAS)

## **Secondary outcomes**

empty

## **Intervention groups**

### 1

#### **Description**

Use of Sensikin gel, three times a day for one week.

#### **Category**

Treatment - Drugs

### 2

#### **Description**

Use Of Nd:Yag Laser (1W, 10Hz, 60s, two times)

#### **Category**

Treatment - Devices

### 3

#### **Description**

with laser device while it was off as placebo

#### **Category**

Placebo

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

Faculty of Dentistry, Isfahan University of Medical Sciences

##### **Full name of responsible person**

Fatemeh Shafiei

##### **Street address**

Isfahan Faculty Of Dentistry

##### **City**

Isfahan

## **Sponsors / Funding sources**

### 1

#### **Sponsor**

##### **Name of organization / entity**

Vice chancellor for research, Faculty od Dentistry, Isfahan University of Medical Sciences

**Full name of responsible person**

Dr. Savabi

**Street address**

Faculty of Dentistry

**City**

Isfahan

**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, Faculty of Dentistry,  
Isfahan 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**

Isfahan Faculty Of Dentistry

**Full name of responsible person**

Dr. Jaber Yaghini

**Position**

Periodontologist

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Isfahan Faculty Of Dentistry

**Full name of responsible person**

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**Web page address****Person responsible for updating data****Contact****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*