

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jul 2026

comparison effect of diode laser 940 nm and triple antibiotic on Minocycline resistance genes(Tet Q , Tet S , Tet O) in Enterococcus faecalis isolated from primary root canal infections

Protocol summary

Study aim

comparison effect of diode laser 940 nm and triple antibiotic on Minocycline resistance genes(Tet Q , Tet S , Tet O) in Enterococcus faecalis isolated from primary root canal infections

Design

In this study, patients with 150 necrotic pulp with the inclusion criteria for entering the study are selected and sample will be taken at the endodontics department of Zahedan dental school. An unpredictable sampling will be done, so that the root canal sampling is done by a specialist in the dental clinic.

Settings and conduct

In this study, 150 necrotic pulp was selected. Sampling will done at the endodontics department of Zahedan dental school. patients are divided into three groups

Participants/Inclusion and exclusion criteria

inclusion criteria: Patients aged 15-60 years who referred to the endodontic department of Zahedan dental school, and after having performed vitality test, the diagnosis of "necrotic pulp" with and without periapical involvement was done for their teeth; dental pulp in relation to the cavity Mouth; the patient has not been admitted to the hospital for the last three months and has not taken antibiotics; The tooth has not been treated with endodontic treatment. exclusion criteria: The absence of necrotic pulp after entering the chamomile pulp and root canal; the impossibility of tooth isolation and the contamination of the saliva treatment environment; Patients who remember the use of misleading drugs

Intervention groups

group1: laser, group2: laser medication, group control: medication

Main outcome variables

changing intracanal bacteria count, Report on the prevalence of Enterococcus faecalis in the root canal, Investigation of Myocycline Antibiotic Resistance

Genes in Enterococcus faecalis

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170712035051N2**

Registration date: **2018-03-11, 1396/12/20**

Registration timing: **registered_while_recruiting**

Last update: **2018-03-11, 1396/12/20**

Update count: **0**

Registration date

2018-03-11, 1396/12/20

Registrant information

Name

shima bijari

Name of organization / entity

zahedan university medical science

Country

Iran (Islamic Republic of)

Phone

+98 915 362 4457

Email address

shima.bijari@zaums.ac.ir

Recruitment status

Recruitment complete

Funding source

Governmental

Expected recruitment start date

2018-02-20, 1396/12/01

Expected recruitment end date

2018-04-04, 1397/01/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

comparison effect of diode laser 940 nm and triple antibiotic on Minocycline resistance genes(Tet Q , Tet S , Tet O) in Enterococcus faecalis isolated from primary root canal infections

Public title

The effect of laser in the treatment of microbial infection of the root of the tooth

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Inclusion criteria: Patients aged 15-60 years old who referred to the Department of Endodontics at the Faculty of Dentistry in Zahedan And after having performed a vitality test, the diagnosis of "necrotic pulp. three months and has not taken antibiotics. "Dental pulp is not related to the oral cavity The patient has not been hospitalized for the past three months and has not taken antibiotics. The tooth has not been treated with endodontic treatment.

Exclusion criteria:

Exclusion criteria: The absence of necrotic pulp after entering the chamber pulp and root canal the impossibility of tooth isolation and the contamination of the operating environment with saliva patients who remember the course of treatment of confusing drugs

Age

From **78 years** old to **51 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **150**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization: For simple randomization of 150 numbered records, the type of intervention is specified by the individual, and the files will be removed accordingly

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

zahedan university of medical sciences

Street address

zahedan-Dr Hasabi's Square-

City

zahedan

Province

Sistan-va-Balouchestan

Postal code

9817699693

Approval date

2017-10-08, 1396/07/16

Ethics committee reference number

IR.ZAUMS.REC.1396.192

2**Ethics committee****Name of ethics committee**

zahedan university of medical sciences

Street address

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2017-10-08, 1396/07/16

Ethics committee reference number

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Health conditions studied**1****Description of health condition studied**

Infection of root canal system

ICD-10 code

B99-B99

ICD-10 code description

سایر بیماری های عفونی

Primary outcomes**1****Description**

Expression of a gene resistant to triple antibiotics

Timepoint

before intervention-1 week after intervention

Method of measurement

polymerase chain reaction

2

Description

reduction colony count

Timepoint

before intervention-1 week after intervention

Method of measurement

number colony count

Secondary outcomes

empty

Intervention groups

1

Description

group 1: intervention with laser

Category

Treatment - Drugs

2

Description

Intervention group2: intervention with laser and triple antibiotic

Category

Treatment - Drugs

3

Description

Control group:triple antibiotic

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Zahedan dental school

Full name of responsible person

Shima Bijari

Street address

department of endodontics,dental school,east azadegan street.zahedan

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Postal code

9817699693

Phone

+98 54 3344 1824

Email

shima.bijari@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

the university of zahedan

Full name of responsible person

deputy of research of zahedan university of medical sciences

Street address

zahedan-azadegan street-dental school

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zahedan

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Email

shima.bijari@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

the university of zahedan

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

The university medical school of zahedan

Full name of responsible person

Shima bijari

Position

Endodontics resident

Latest degree

Medical doctor

Other areas of specialty/work

Dentistry

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Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

The university medical school of zahedan

Full name of responsible person

Eshaghali saberi

Position

Associate Professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Fax**Email**

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

The university medical school of zahedan

Full name of responsible person

Shima bijari

Position

Resident of endodontics

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Phone

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Fax**Email**

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Web page address**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

No - There is not 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

Part of the individual data and information with the outcomes include the counting of bacteria and the prevalence of faecalis in the root canal and the occurrence of antibiotic resistance genes that can be shared.

When the data will become available and for how long

6 months after printing results

To whom data/document is available

Researchers working in academia and academia

Under which criteria data/document could be used

In order to replicate scientific studies and development, data can be used

From where data/document is obtainable

Author of the article

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

Administrative correspondence through the deputy of research and technology

Comments