Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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 critria: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 Myocyelucline 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
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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 aged15-60 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
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Street address
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Province
Sistan-va-Balouchestan
Postal code
9817699693
Approval date
2017-10-08, 1396/07/16
Ethics committee reference number
IR.ZAUMS.REC.1396.192

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
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department of endodontics،dental school،east azadegan street،zahedan
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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 sciencess
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zahedan-azadegan street-dental school
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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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Person responsible for scientific inquiries

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Person responsible for updating data

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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