Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

An evaluation of clinical and radiographic success rate of vital pulp therapy in molars with irreversible pulpitis with young and aged pulps

Protocol summary

Summary

100 patients aged 10-65 years with no systemic disease of both sexes with a diagnosis of irreversible pulpitis during vitality tests were included in study.Then patients divided into two groups of 50 according to their age and level of recession of pulp chamber in their parallel radiography.patient with the age of 40 and more and calcified pulp chamber are included in aged group and patien with the age of less than 40 and without calcified pulp chamber are included in young group. After anesthetic injection and mouthwashes with Chlorhexidine 0.2 % dental caries were removed from environment to center. The tooth was isolated with rubber dam & clamp. Preparing the access cavity were completed and inflamed pulp removed by the using of diamond bur and excavator to the cervical area. In order to achieve hemostasis rinsing with sterile normal saline and using a small piece of sterile cotton Impregnated 5.25% hypochlorite sodium were used. Then CEM cement were placed in the area in 2 mm of thickness and damp cotton were used over that then dental temporary dressing were placed. The intensity of pain over 48 hours measured with VAS schedule .Clinical and radiographic evaluations at 6 and 12 months after treatment is performed to evaluate the treatment results.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016051027738N2**
Registration date: **2016-06-16, 1395/03/27**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2016-06-16, 1395/03/27

Registrant information

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Name of organization / entity
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Recruitment status

Recruitment complete

Funding source
Kerman University of Medical Sciences

Expected recruitment start date

2016-01-21, 1394/11/01

Expected recruitment end date

2017-03-19, 1395/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

An evaluation of clinical and radiographic success rate of vital pulp therapy in molars with irreversible pulpitis with young and aged pulps

Public title

An evaluation of clinical and radiographic success rate of vital pulp therapy in molars with irreversible pulpitis with young and aged pulps

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Irreversible pulpitis in molar teeth; Spontaneous, radiating and lingering tooth pain which is

reproducible; Age between 10-65; Cooperative patient to follow-ups; filled informed consent. Exclusion criteria:severe and moderate marginal periodontitis; Not restorable; internal or external resorption; some systemic diseases which affect healing of the pulp or post operative pain; pregnant women; Periapical lesions; Necessity of intrapulpal injection; Patient with traumatic occlusion

Age
From **10 years** old to **65 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **100**

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Kerman University of Medical Sciences

Street address
Kerman,dental school

City
Kerman

Postal code

Approval date
2016-02-20, 1394/12/01

Ethics committee reference number
IR.Kmu.REC.1394.632

Health conditions studied

1

Description of health condition studied
irreversible pulpitis

ICD-10 code
k04.0

ICD-10 code description
Diseases of pulp and periapical tissues

Primary outcomes

1

Description
post operative tooth pain

Timepoint
after 6- 48 hours

Method of measurement
VAS

Secondary outcomes

1

Description
success rate

Timepoint
6-12 months

Method of measurement
radiographic and clinical evaluation

Intervention groups

1

Description
vital pulp therapy for aged and calcified pulp and same treatment for young group(samae intervention for two different groups)

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Kerman dental school

Full name of responsible person
Arash Shahravan

Street address
Dental school

City
Kerman

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Kerman University of Medical Sciences

Full name of responsible person
Aida Farhadi

Street address
Kerman, dental school

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Grant name

Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Kerman 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

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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