

Clinical Trial Protocol

Iranian Registry of Clinical Trials

29 Jul 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 patient 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

Name

Aida Farhadi

Name of organization / entity

Kerman University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 34 3253 5141

Email address

a.shahravan@kmu.ac.ir

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 (same 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

City

Kerman

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****Contact****Name of organization / entity***Kerman University of Medical Sciences***Full name of responsible person***Arash Shahravan***Position***associate peofessor of endodontics***Other areas of specialty/work****Street address***Kerman dental school***City***Kerman***Postal code****Phone***+98 34 3211 8074***Fax****Email***arashahravan@gmail.com***Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity***Kerman University of Medical Sciences***Full name of responsible person***Arash Shahravan***Position***associated professor***Other areas of specialty/work****Street address***Kerman***City***Kerman***Postal code****Phone***+98 34 3211 8074***Fax****Email***arashahravan@gmail.com***Web page address****Person responsible for updating data****Contact****Name of organization / entity****Full name of responsible person***Aida Farhadi***Position****Other areas of specialty/work****Street address***Kerman dental school***City***Kerman***Postal code****Phone***+98 34 3211 8025***Fax****Email****Web page address****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*