

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Investigation Response to Pulp Sensitivity Tests after Full Pulpotomy in Permanent Mandibular Teeth with Symptomatic Irreversible Pulpitis

Protocol summary

Study aim

The present study aims to investigate the response to pulp sensitivity tests after complete pulpotomy in mandibular permanent teeth with symptomatic irreversible pulpitis.

Design

The clinical trial has an intervention group and is conducted on 36 patients.

Settings and conduct

The present study is conducted in clinics and private offices in Ilam city.

Participants/Inclusion and exclusion criteria

Inclusion criteria: - Age range 16-35 years - adult permanent mandibular molars with deep or very deep occlusal/proximal caries with marked irreversible pulpitis - After providing complete and informative explanations about Root Canal therapy (RCT) and complete pulpotomy, its advantages and disadvantages and success and failure rates in this type of treatment, complete pulpotomy was performed with the patient's consent. If the treatment fails, RCT treatment is used as an alternative treatment. Exit criteria: - Caries in the buccal and lingual area - History of trauma and orthodontic treatment and therapy and special parafunctional habits - Mandibular molar teeth with proximal occlusal decay with diagnosis of necrosis and reversible pulpitis

Intervention groups

In the present study, electric pulp test and cold test are used to check the success rate of complete pulpotomy treatment after 12 months. First intervention: electrical test, second intervention: cold test

Main outcome variables

suggestion an effective pulp sensitivity test in the field of complete pulpotomy in mandibular permanent teeth with symptomatic irreversible pulpitis

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230525058289N1**

Registration date: **2023-06-14, 1402/03/24**

Registration timing: **registered_while_recruiting**

Last update: **2023-06-14, 1402/03/24**

Update count: **0**

Registration date

2023-06-14, 1402/03/24

Registrant information

Name

mehdi ziagham ahvaz

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 61 3222 8541

Email address

mehdiziagham@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-06-11, 1402/03/21

Expected recruitment end date

2023-07-12, 1402/04/21

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigation Response to Pulp Sensitivity Tests after Full Pulpotomy in Permanent Mandibular Teeth with Symptomatic Irreversible Pulpitis		Ilam University of Medical Sciences campus, Banganjab, Research Blvd, Ilam	
Public title	Investigation Response to Pulp Sensitivity Tests after Full Pulpotomy in Permanent Mandibular Teeth with Symptomatic Irreversible Pulpitis	City	ilam
		Province	Ilam
		Postal code	6939177143
Purpose	Treatment	Approval date	2023-05-08, 1402/02/18
Inclusion/Exclusion criteria		Ethics committee reference number	
Inclusion criteria:		IR.MEDILAM.REC.1402.025	
Age range 16-35 years adult permanent mandibular molars with deep or very deep occlusal/proximal caries with marked irreversible pulpitis After providing complete and informative explanations about RCT treatment and complete pulpotomy, its advantages and disadvantages and success and failure rates in this type of treatment, complete pulpotomy was performed with the patient's consent. In case of treatment failure, RCT treatment was used as an alternative treatment.		Health conditions studied	
Exclusion criteria:		1	
Buccal and lingual caries History of trauma and orthodontic and restorative treatments as well as specific parafunctional habits Mandibular molar teeth with proximal occlusal caries with diagnosis of necrosis and reversible pulpitis		Description of health condition studied	
		In this study, patients with adult permanent teeth with deep or very deep occlusal/proximal caries with symptomatic irreversible pulpitis are examined.	
		ICD-10 code	
		K04.0	
		ICD-10 code description	
		Pulpitis	
Primary outcomes			
1			
Description			
Success and failure of full pulpotomy			
Timepoint			
Success was assessed 12 months after full pulpotomy			
Method of measurement			
- Examination of radiographs, clinical examination (using cold and electrical tests)			
Secondary outcomes			
empty			
Intervention groups			
1			
Description			
Intervention group: In this study, two electric and cold tests were used to check the success of full pulpotomy treatment. First intervention: Electric test: In the electric pulp test, the opposite and treated tooth is removed with a cotton roll. The lip clip is placed in the corner of the patient's mouth. The tip of the electrode is covered with water-based gel and is placed between the gingival edge and the occlusal edge of the buccal surface of the mandibular molar tooth, and the contact of the electrode with the free edge of the gingiva is prevented. Finally, the patient is asked to raise his hand if he feels any emotion. The response is recorded as "Reply Received" or "No Response". The second intervention: Cold test: The cold test is performed using a cooling spray of tetrafluoroethene 2,1,1,1 and size 2 cotton, which is			

applied in the same position as the electric electrode on the buccal surface of the tooth. This test is performed by an endodontist for 5 seconds.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Clinics and private offices in Ilam city

Full name of responsible person

Dr Amin Kheytri

Street address

3rd Floor, Razi Complex, Adib Alley, South Saadi, Ilam

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Province

Khouzestan

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6931916564

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Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ilam University of Medical Sciences

Full name of responsible person

Dr Abas Maleki

Street address

Ilam University of Medical Sciences campus,
Banganjab, Research Blvd, Ilam

City

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6939177143

Phone

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Email

info@medilam.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Ilam University of Medical Sciences

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

Ilam University of Medical Sciences

Full name of responsible person

Mehdi Ziagham Ahwaz

Position

Dentistry student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

Street address

No. 21, between Nabii and Razavi, Mohammadian St,
South Shariati,

City

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Person responsible for scientific inquiries

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Person responsible for updating data

Contact

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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

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

Data of patients after full pulpotomy in mandibular permanent teeth with symptomatic irreversible pulpitis

When the data will become available and for how long

The access period starts 1 year after the results are published

To whom data/document is available

Researchers working in academic and scientific institutions

Under which criteria data/document could be used

Other statistical analyzes are allowed in these data.

From where data/document is obtainable

Send a message to the following email to receive the data mehdiziagham@yahoo.com

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

Send email and register request

Comments