

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Jul 2026

Comparative evaluation of anesthetic efficacy of inferior alveolar nerve block plus buccal or lingual infiltration with articaine in painful mandibular molars with irreversible pulpitis

Protocol summary

Summary

Goal : To choose the best anesthetic administration technique for mandibular molars diagnosed with irreversible pulpitis Study Design : Randomized , single blind clinical trial Inclusion Criteria :Patients with first and second mandibular molars diagnosed with Symptomatic Irreversible Pulpitis Exclusion Criteria : patients that have used sedatives in the last 12 hours,pregnancy,allergies sample size :60 study intervention : Group 1: Inferior Alveolar nerve block anesthesia for first molar Group 2 : Inferior Alveolar nerve block plus buccal infiltration for first molar Group 3 : Inferior Alveolar nerve block plus lingual infiltration for first molar Group 4: Inferior Alveolar nerve block anesthesia for second molar Group 5 : Inferior Alveolar nerve block plus buccal infiltration for second molar Group 6 : Inferior Alveolar nerve block plus lingual infiltration for second molar Intervention time : before access cavity preparation Outcomes Studied : level of pain on a visual analogue scale

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014120820238N1**

Registration date: **2015-02-21, 1393/12/02**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-02-21, 1393/12/02

Registrant information

Name

Farzaneh Afkhami Jeddi

Name of organization / entity

Tehran University of Medical Sciences International Campus

Country

Iran (Islamic Republic of)

Phone

+98 21 5585 1131

Email address

f-afkhami@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences International Campus Dental School

Expected recruitment start date

2014-12-30, 1393/10/09

Expected recruitment end date

2015-01-30, 1393/11/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative evaluation of anesthetic efficacy of inferior alveolar nerve block plus buccal or lingual infiltration with articaine in painful mandibular molars with irreversible pulpitis

Public title

Comparison of anesthetic efficacy of articaine in different anesthetic administration methods in the lower jaw molars

Purpose

Treatment

Inclusion/Exclusion criteria

Exclusion criteria: Patients with systemic Diseases ,

Patients that have used any form of sedatives in the past 12 hours , Patients that have allergies to anesthetics or sulfites, Pregnancy , Patients that are unable to give Informed Consent , Patients with Periapical Lesions. Inclusion criteria :Patients between the ages of 18 to 60 , Patients with first and second mandibular molars diagnosed with Symptomatic Irreversible Pulpitis

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tehran University of Medical Sciences International
Campus Dental School

Street address

Zolfi St. - Khani Abad no

City

Tehran

Postal code

Approval date

2013-07-15, 1392/04/24

Ethics committee reference number

21363

Health conditions studied

1

Description of health condition studied

Irreversible Pulpitis

ICD-10 code

k04.0

ICD-10 code description

Pulpitis

Primary outcomes

1

Description

Pain

Timepoint

after 20 minutes

Method of measurement

Visual Analogue Scale

Secondary outcomes

empty

Intervention groups

1

Description

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 1
: Inferior Alveolar nerve Block Anesthesia For First Molar

Category

Treatment - Other

2

Description

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 2
: Inferior Alveolar nerve Block Anesthesia plus Buccal
infiltration for First molar

Category

Treatment - Other

3

Description

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 3
: Inferior Alveolar nerve Block anesthesia with Lingual
infiltration for First Molar

Category

Treatment - Other

4

Description

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 4
: Inferior Alveolar nerve Block Anesthesia For Second
Molar

Category

Treatment - Other

5

Description

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 5
: Inferior Alveolar nerve Block Anesthesia plus Buccal
infiltration for Second molar

Category

Treatment - Other

6**Description**

Local Anesthesia administration in mandible with
Articaine 4% with 1:100000 Epinephrine ,3.6 ml Group 6
: Inferior Alveolar nerve Block anesthesia plus Lingual
infiltration for Second Molar

Category

Treatment - Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Tehran University of Medical Sciences International
Campus Dental School

Full name of responsible person**Street address****City**

Tehran

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Tehran University of Medical Sciences International
Campus Dentistry School

Full name of responsible person

Reza Yazdani

Street address

Zolfi St. -Khani Abad no - Tehran

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Tehran University of Medical Sciences International
Campus Dentistry School

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**

Tehran University of Medical Sciences International
Campus Dentistry School

Full name of responsible person

Adel Ardestani

Position

Professional Doctorate Student

Other areas of specialty/work**Street address**

Zolfi St. - Khani Abad no

City

Tehran

Postal code**Phone**

+98 21 5585 1149

Fax**Email**

ardestani.adel@gmail.com

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

Tehran University of Medical Sciences International
Campus Dentistry School

Full name of responsible person

Farzane Afkhami Jeddi

Position

Endodontist , Assistant Professor

Other areas of specialty/work**Street address**

Zolfi St. - Khani Abad no

City

Tehran

Postal code**Phone**

+98 21 5585 1149

Fax**Email**

f-afkhami@tums.ac.ir

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

Tehran University of Medical Sciences International
Campus Dentistry School

Full name of responsible person

Adel Ardestani

Position

Professional Doctorate Student

Other areas of specialty/work**Street address**

Zolfi St. - Khani Abad no

City

Tehran

Postal code
Phone
00
Fax
Email
ardestani.adel@gmail.com
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