

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 May 2026

comparison the effect of lidocaine inferior alveolar nerve block versus articaine lingual infiltration as primary injection on onset and duration of pulpal anesthesia in mandibular second molar with healthy pulp

Protocol summary

Summary

the aim of present study is to compare the effect of lidocaine blocks with articaine lingual infiltration as primary injection on onset and duration of anesthesia of visitors of endo-department during 2016-2017. the distinct objectives of present study are: 1-determining qualified patients and assigning them to control and test groups 2-determining onset and duration of anesthesia for these two groups the present study was conducted in the form of clinical trials.all patients with anesthetic indication in mandibular second molar with healthy pulp and two indicative quadrants were studied.their quadrants were randomly categorized into two groups of test (articaine infiltration) and control (lidocaine blocks). the injector (syringe) had identical needle tip.the test group had articaine infiltration made in ceptodent (amount:1 carpool) and control group will be regarded as next quadrant on which the same person is administered with same syringe and lidocaine block instruments (made by Daro-Pakhsh company). for both groups,after injection start of anesthesia is recorded every minutes through electric pulp tester and it is recorded in information form no.2 . in addition,duration of anesthesia , time of anesthesia (recorded every minute) is recorded in information form no.2 in the same method until anesthesia is over.time of start and duration of anesthesia were judged in two groups through t-tests. qualified individuals without systemic and neurologic diseases and sensitivity to anesthetic drugs,smoking and alcohol and drug addiction second mandibular teeth with healthy pulp and free from infection and swelling on both sides. in the present study,30 individuals offering 60 samples were analyzed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017020223620N6**

Registration date: **2017-04-06, 1396/01/17**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-04-06, 1396/01/17

Registrant information

Name

Mohammadreza Moshari

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 2243 2595

Email address

rmoshari@sbmu.ac.ir

Recruitment status

Recruitment complete

Funding source

private

Expected recruitment start date

2017-03-05, 1395/12/15

Expected recruitment end date

2018-03-06, 1396/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

comparison the effect of lidocaine inferior alveolar nerve block versus articaine lingual infiltration as primary injection on onset and duration of pulpal anesthesia in mandibular second molar with healthy pulp

Public title

efficacy of articaine lingual infiltration on pulp anesthesia

Purpose

Health service research

Inclusion/Exclusion criteria

qualified individuals without any systemic and neurologic diseases and sensitivity to anesthetic drugs, smoking and alcohol and drug addiction second mandibular teeth with healthy pulp and free of infection and swelling on both sides

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**

Islamic azad university, dental branch

Street address

Tehran-pasdaran st.-10th neyestan-no 4

City

Tehran

Postal code

1946853314

Approval date

2016-12-20, 1395/09/30

Ethics committee reference number

IR.IAU.DENTAL.REC.1395,18

Health conditions studied**1****Description of health condition studied**

pulp

ICD-10 code

k04

ICD-10 code description

diseases of pulp and periapical tissues

Primary outcomes**1****Description**

onset pulp anesthesia

Timepoint

5 minutes after injection-8 minutes after injection-11 minutes after injection-15 minutes after injection-20 minutes after injection-25 minutes after injection-30 minutes after injection-45 minutes after injection-60 minutes after injection-75 minutes after injection-90 minutes after injection

Method of measurement

in minutes

2**Description**

duration of pulpal anesthesia

Timepoint

5 minutes after injection-8 minutes after injection-11 after injection-15 minutes after injection-20 minutes after injection-25 minutes after injection-30 minutes after injection-45 minutes after injection-60 minutes after injection-75 minutes after injection-90 minutes after injection

Method of measurement

in minutes

Secondary outcomes**1****Description**

loss of anesthesia

Timepoint

5 minutes after injection-8 minutes after injection-11 minutes after injection-15 minutes after injection-20 minutes after injection-25 minutes after injection-30 minutes after injection-45 minutes after injection-60 minutes after injection-75 minutes after injection-90 minutes after injection

Method of measurement

in minutes

Intervention groups**1****Description**

1.8 mg articaine lingual infiltration on mandibular second molar in the intervention group

Category

N/A

2**Description**

1.8 mg lidocaine inferior alveolar nerve block in the control group

Category

N/A

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

Islamic azad university,dental branch

Full name of responsible person

Dr Ehsan Esnaashari

Street address

Tehran-pasdaran st.-10th neyestan-no 4

City

Tehran

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

Islamic Azad University,Dental Branch

Full name of responsible person

Dr Arash Azizi

Street address

Tehran-Pasdaran st.-10th Neyestan-No 4

City

Tehran

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

Yes

Title of funding source

Islamic Azad University,Dental Branch

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**

Islamic Azad University,Dental Branch

Full name of responsible person

Dr Ehsan Esnaashari

Position

PHD

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

Tehran-Pasdaran st.-9th Boostan-No 133

City

Tehran

Postal code

1941733113

Phone

+98 21 2279 3163

Fax

+98 21 2279 3163

Email

Ehsan_dmd@yahoo.com

Web page address

Drehsanesnaashari.ir

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

Islamic Azad University,Dental Branch

Full name of responsible person

Dr Amir Abbas Moshari

Position

PhD

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

Tehran-Pasdaran st.-10th Neyestan.No 4

City

Tehran

Postal code

1946853314

Phone

+98 21 2256 4571

Fax

+98 21 2256 4571

Email

Ehsan_dmd@yahoo.com

Web page address

Drehsanesnaashari.ir

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

Islamic Azad Unuversity,Dental Branch

Full name of responsible person

Shadi Mirzaei Aygani

Position

student

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

karaj-azimie-Elham st.-no 4

City

Karaj

Postal code

3155735536

Phone

+98 26 3254 7458

Fax**Email**

shadi.mirzaei91@yahoo.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