Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Jun 2026

Efficacy of combining variuse anesthesia technique in success rate of anesthesia in first mandibular molar with irreversible pulpitis

Protocol summary

Summary

This study was to compare the success rate of using both an IAN block and a buccal infiltration and periodontal injection with that obtained by using an IAN block alone for endodontic treatment of mandibular teeth with irreversible pulpitis. In a randomized double-blinded clinical Trial, eighty-six patients were randomly assigned to 2 groups of 43 patients each. The exclusion criteria are the presence of systemic disorders, a sensitivity to lidocaine with 1:80,000 epinephrine, a sensitivity to NSAIDs and the Inclusion criteria included healthy patients having a first mandibular molar tooth with irreversible pulpitis and normal periapical radiographic appearance. Lidocaine 2% with 1:80,000 epinephrine was used for all injections. Group I patients received an IAN block with 3.6 mL of anesthetic. Group II patients received 1.8 mL as an IAN block and 1.8 mL as a buccal infiltration and after 15 minuets received 0.9 ml periodontal injection . A visual analogue scale was used to rate pain before anesthesia and discomfort experienced before and during access cavity preparation. Data were analyzed by Tow way repeated measure ANOVA, multivariate logistic regression.

General information

Acronym

Inferior alveolar nerve blok (IANB)

IRCT registration information

IRCT registration number: **IRCT138901072016N4**
Registration date: **2012-05-13, 1391/02/24**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2012-05-13, 1391/02/24

Registrant information

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Recruitment status

Recruitment complete

Funding source

Kerman University of Medical Sciences

Expected recruitment start date

2012-05-04, 1391/02/15

Expected recruitment end date

2013-02-03, 1391/11/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Efficacy of combining variuse anesthesia technique in success rate of anesthesia in first mandibular molar with irreversible pulpitis

Public title

Efficacy of combining variuse anesthesia technique in success rate of anesthesia in inflammaded posterior tooth of mandible

Purpose

Treatment

Inclusion/Exclusion criteria

The exclusion criteria were the presence of systemic disorders, a sensitivity to lidocaine with 1:80,000

epinephrine, a sensitivity to NSAIDs, the presence of widening of the periodontal ligament space, the presence of a periapical radiolucency, lactation, pregnancy. Inclusion criteria included healthy patients having a first mandibular molar tooth with irreversible pulpitis and normal periapical radiographic appearance, whit out spontaneously pain that to be needed emergency treatment.

Age
From **18 years** old to **83 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **86**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
vice president for research building;kerman university of medical sciense

Street address
somaye cross road;vice president for research building;kerman university of medical sciense

City
kerman

Postal code

Approval date
2012-02-04, 1390/11/15

Ethics committee reference number
KA/90/336

Health conditions studied

1

Description of health condition studied
irreversible pulpitis

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Pain degree

Timepoint
Befor and after intervention

Method of measurement
Visual Analogous Scale(VAS)

Secondary outcomes

1

Description
Pain in the location of injection

Timepoint
24 and 48 houre after treatment

Method of measurement
Visual analogous scale

Intervention groups

1

Description
Inferior alveolar nerve block injection

Category
Treatment - Other

2

Description
Inferiore alveolar nerve block injection, buccal infilteration and peridontal injection

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Kerman University of Medical Sciences,school of dentistry

Full name of responsible person

Street address
Jomhori Eslami Bloubvared, Headquarter Builidng of Kerman Medical Sciences University

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
vice president for research building;kerman university

of medical sciense

Full name of responsible person

masoud parirokh

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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

vice president for research building;kerman university of medical sciense

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

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Position

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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