Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison anesthetic onset and duration of Citanest and Dentanest in maxillary and mandibullary molars with normal pulps.

Protocol summary

Summary

Objectives : Maxillary Buccal Infiltration and Inferior Alveolar Nerve Block(IANB) are the most common techniques to achieve anesthesia for routine dental procedures of maxillary and mandidular teeth ,respectively . Prilocaine is one of the anesthetic solution which specially practical in some systemic diseases.There are two commercial types of Prilocaine naming Citanest and Dentanest . The aim of this study was to compare the anesthetic efficancy of these two solutions regarding the onset and duration . Design: This study designed randomized cross-over clinical trial. Setting and Conduct : Maxillary Buccal Infiltration and IANB were applied by one trained practitioner and the onset and duration of pulpal and soft tissue anesthesia were measured using EPT and Pin Prick ,respectively every 2minutes for a period of 60 minutes . Subjects with no sign of lip anesthesia 20min after receiving IANB were excluded from the study.The obtained data were analyzed using T-test and Wilcoxon test. Participants including major eligibility criteria : In this study participated 20 healthy subjects which had maxillary and mandibular molars with no caries , large restorations , crowns and periodontal diseases .They written informed consent was obtained from each subject. Intervention : Age , Needle gauge , tooth type , periodontal disease , Injection duration . Measures variables : Onest of pulpal anesthesia in maxillary buccal infiltration , pulpal duration of maxillary buccal infiltration , onset of pulp in IANB , pulpal duration of IANB .

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015102319207N2**
Registration date: **2016-01-25, 1394/11/05**
Registration timing: **retrospective**
Last update:
Update count: **0**

Registration date

2016-01-25, 1394/11/05

Registrant information

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Recruitment status

Recruitment complete

Funding source

investigator

Expected recruitment start date

2014-03-20, 1392/12/29

Expected recruitment end date

2015-03-20, 1393/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison anesthetic onset and duration of Citanest and Dentanest in maxillary and mandibullary molars with normal pulps.

Public title

Comparison citanest and dentanest

Purpose

Other

Inclusion/Exclusion criteria
Inclusion criteria : Subjects between 18 to 65 yrs ; had not any systemic disease ; they had not used any medication ; had not sensitivity to anesthesia solution ; had not pathology in injection area ; had fist or second maxillary and mandibulary molars Exclusion criteria : Caries and crown and periodontal disease in studied molars ; pragnancy ; systemic disease

Age
From **18 years** old to **65 years** old

Gender
Both

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **20**

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
Ethics committe of Islamic Azad University of Dentistry tehran branch

Street address
10th Neyestan , Pasdaran

City
Tehran

Postal code

Approval date
2014-02-25, 1392/12/06

Ethics committee reference number
پ/320/د

Health conditions studied

1

Description of health condition studied
onset and duration of pulpal anesthesia

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Onset of Pulp and Soft tissue anesthesia

Timepoint
Per 2-minute post injection

Method of measurement
Electric Pulp Tester (EPT) , Pin Prick

Secondary outcomes

1

Description
Duration of Pulp and Soft tissue anesthesia

Timepoint
Every 2- minute post injection

Method of measurement
Electric Pulp Tester , Pin prick

Intervention groups

1

Description
Intervention:1.8ml (one catrige) Dentanest(Perilocaine 3% with 0/03 flypersine) once during 30 to 60 seconds in Maxillary buccal infiltratin and Inferior Alveolar Nerve Block.

Category
N/A

2

Description
Control group : 1.8 ml (one cartrige) Citanest (Perilicaine 3 % with 0/03 flypersin) once during 30 to 60 seconds in Maxillary Buccal Infiltration and Inferior Alveolar Nerve Block .

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Islamic Azad University,Dental Branch of Tehran ,Endodontics department

Full name of responsible person
Dr. Pooneh Mohebbi

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Sponsors / Funding sources

1

Sponsor
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Vice chanceller for research,Azad university of dentistry
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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 chanceller for research,Azad university of dentistry
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

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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