Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparing the effect of inferior alveolar and mental nerve block on heart rate and oxygen blood saturation changes

Protocol summary

Summary
The aim of this single blind,split mouth randomized clinical trial was to measure the heart rate changes and oxygen saturation of blood, before,immediately and 5 minutes after applying inferior alveolar and mental nerve block injections in 25 healthy patients(50 cases),aged between 18-70 years old,male or female,who referred to dental branch of Islamic Azad University,and were in need of any dental treatments of mandibular canines or premolars,at both sides.

General information

Acronym
IRCT registration information
IRCT registration number: **IRCT2014122220396N1**
Registration date: **2015-03-07, 1393/12/16**
Registration timing: **retrospective**

Last update:
Update count: **0**
Registration date
2015-03-07, 1393/12/16

Registrant information
Name
Mehdi Vatanpour
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Islamic Azad University.Dental Branch
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Recruitment status
Recruitment complete
Funding source
Investigator

Expected recruitment start date
2014-12-01, 1393/09/10
Expected recruitment end date
2015-01-31, 1393/11/11
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparing the effect of inferior alveolar and mental nerve block on heart rate and oxygen blood saturation changes

Public title
Comparing the effect of two different dental injections on changes of heart rate and blood oxygen saturation
Purpose
Treatment
Inclusion/Exclusion criteria
Patients aged between 18 to 70 years old; patients who were in need of inferior alveolar or mental nerve block injections for extraction, restoration or endodontic treatments of mandibular canines or premolars; with the pulpal diagnosis of necrosis or irreversible pulpitis and no or mild report of pain in VAS assessment and with no systemic disease.
Age
From **18 years** old to **70 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **25**

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
Ethics Committee of Dental branch, Islamic Azad University
Street address
No.4, Neyestan 10 ave, Pasdaran street
City
Tehran
Postal code
Approval date
2014-11-30, 1393/09/09
Ethics committee reference number
د/۲٦۹/پ

Health conditions studied

1

Description of health condition studied
Heart rate & blood oxygen saturation percentage
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Heart rate
Timepoint
Before, immediately, 5 minutes after injection
Method of measurement
Puls oxymeter

Secondary outcomes

1

Description
Blood oxygen saturation
Timepoint
Before, immediately, 5 minutes after injection
Method of measurement
Puls oxymeter

Intervention groups

1

Description
Apply inferior alveolar nerve block :after aspiration,one cartridge of lidocaine 2%with epinephrine 1/80000 was injected during 60 seconds.
Category
Treatment - Drugs

2

Description
Apply Mental block injection:after aspiration,one cartridge of lidocaine2% with epinephrine was injected during 60seconds.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Islamic Azad University, Dental branch
Full name of responsible person
Mehdi vatanpour
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No.4,neyestan 10 alley,pasdaran street
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University, Dental branch
Full name of responsible person
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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
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Person responsible for updating data

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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