

Clinical Trial Protocol

Iranian Registry of Clinical Trials

01 Jul 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

Name of organization / entity

Islamic Azad University, Dental Branch

Country

Iran (Islamic Republic of)

Phone

+98 21 2256 4571

Email address

m_vatanpour@dentaliau.ac.ir

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

پ/۲۶۹/۵

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

Street address

No.4,neyestan 10 alley,pasdaran street

City

Tehran

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

Islamic Azad University, Dental branch

Full name of responsible person

Mehdi Vatanpour

Street address

Islamic Azad University, Dental branch

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

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

Islamic Azad University, Dental branch

Full name of responsible person

Mahnaz Mohammadian Khonsari

Position

General dentist

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

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DDS

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Full name of responsible person

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Position

Associate professor/ DDS, Ms

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City

Tehran

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