Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of success of inferior alveolar nerve block with and without digital panoramic radiography

Protocol summary

Study aim
En Comparison of success of inferior alveolar nerve block with and without digital panoramic radiography
Design
One-blind, stratified random clinical trial based on jaw side on 53 patients by split mouth
Settings and conduct
53 patients with inclusion and exclusion criteria enter the study among the patients referred to the surgery department of Dental Branch of Islamic Azad University of Tehran. Using the table of random numbers, the side of the jaw to be injected is determined and the injection is done without radiography. next step, the injection of the opposite side is performed using radiography and determine the position of the mandibular foramen related to the occlusal plan. Patients are blinded to injection on each side and finally the results of the two methods are compared
Participants/Inclusion and exclusion criteria
Patients over 18 years, indication of bilateral mandibular block, the power to understand and express the sense, to have digital panoramic radiography, presence of at least two posterior teeth on each side of mandible, non contraindication to the use of routine carpol containing epinephrine, not use other anesthesia methods along with the mandibular block, not restriction of mouth opening and trismus, not having an infection at the injection site
Intervention groups
Case Group: Injection of inferior alveolar nerve block using radiography Control group: Injection of inferior alveolar nerve block without radiography on the opposite side
Main outcome variables
Tingling of lower lip and chin, onset time of anesthesia

General information

Reason for update

Acronym
IANB
IRCT registration information
IRCT registration number: **IRCT20210119050080N2**
Registration date: **2021-02-11, 1399/11/23**
Registration timing: **prospective**

Last update: **2021-02-11, 1399/11/23**
Update count: **0**
Registration date
2021-02-11, 1399/11/23

Registrant information
Name
Eshagh Lasemi
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 21 2256 4571
Email address
elasemi@gmail.com

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2021-02-19, 1399/12/01
Expected recruitment end date
2021-06-05, 1400/03/15
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of success of inferior alveolar nerve block with and without digital panoramic radiography

Public title
Comparison of success of inferior alveolar nerve block with and without digital panoramic radiography
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients over 18 years Indication of bilateral mandibular block The power to understand and express the sense To have digital panoramic radiography Presence of at least two posterior teeth on each side of mandible
Exclusion criteria:
Contraindications to the use of routine carpol containing epinephrine Use other anesthesia methods along with the mandibular block Restriction of mouth opening and trismus To have not digital panoramic radiography Having an infection at the injection site Patient's dissatisfaction to enter the study
Age
From **18 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant

Sample size
Target sample size: **53**
More than 1 sample in each individual
Number of samples in each individual: **2**
One side of the patient's mandible as the control group and the opposite side as the case group receives the intervention test.
Randomization (investigator's opinion)
Randomized
Randomization description
The method of randomization is stratified based on jaw side. Using random numbers table, it is determined which side of each patient's jaw (right or left) to inject first. Then, in order to prevent bias, injection is performed without using the digital panoramic radiography guide on the side specified by random numbers table. And on the opposite side, injection is performed using a digital panoramic radiography guide.
Blinding (investigator's opinion)
Single blinded
Blinding description
Participants in this study will be blinded to which side of the jaw receives the intervention.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Dental School, Islamic Azad University of medical science of Tehran
Street address
No.9, Neiestan9 Ave, Pasdaran Ave
City
Tehran
Province
Tehran
Postal code
1946853314
Approval date
2020-12-14, 1399/09/24
Ethics committee reference number
IR.IAU.DENTAL.REC.1399.236

Health conditions studied

1

Description of health condition studied
Success of inferior alveolar nerve block
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Tingling of lower lip and chin
Timepoint
Immediately after injection
Method of measurement
Ask the patient

Secondary outcomes

1

Description
Onset of anesthesia
Timepoint
Immediately after injection
Method of measurement
chornometer

Intervention groups

1

Description
Intervention group: Determination of upper anterior position of mandibular foramen on digital panoramic radiography And calculate the distance to the occlusal plan using a caliper. specify the same distance inside the

patient's mouth and perform the injection

Category

Treatment - Other

2

Description

Control group: Confluence Location of horizontal line passes from deepest point of pterygomandibular raphe to vertical line passes from tree quarters of anterior of ramus Determines where the needle enters the inner surface of Ramus. Slowly insert the needle into the tissue to reach the bone stop. The average depth of needle entry is 20 to 25 millimeter .After dealing with the bone, pull out the needle by 1 millimeter and After aspiration, inject 1.5 milliliter of anesthetic solution in 60 seconds.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Department of Surgery, Faculty of Dentistry, Islamic Azad University of Tehran

Full name of responsible person

Dr Eshagh Lasemi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Dr Arash Azizi

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Email

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Web page address

http://dental.iautmu.ac.ir/fa

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Islamic Azad University

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Dr Eshagh Lasemi

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available
Title and more details about the data/document
A part of the information, such as information on the main outcome, can be shared.
When the data will become available and for how long
The start of the access period will be 6 to 12 months after the results are released
To whom data/document is available
Data will only be available to researchers working in academic institutions.
Under which criteria data/document could be used
Data will be available for dental research centers, universities and public private health centers. All clinicians using inferior alveolar nerve block in order to dental procedure are allowed to use the documentation.
From where data/document is obtainable
Applicants can contact the person responsible for the article to receive the information. Dr Eshagh Lasemi, elasemi@yahoo.com 00989123871430 No9, Neistan9 Ave, Pasdaran Ave, Tehran
What processes are involved for a request to access data/document
Demand by email to the person responsible for the article elasemi@yahoo.com
Comments