

Clinical Trial Protocol

Iranian Registry of Clinical Trials

31 May 2026

Comparison of "Infiltration" and "Block" Technique in Control of Extraction Pain of First Primary Mandibular Molars in 5-8 Years Old Children

Protocol summary

Summary

Pain control is of significant importance in all dentistry fields. Anesthetic is perhaps the hardest part of treatment in children. The most common method in causing anesthesia in mandibule is the inferior alveolar nerve block. As the block injection has a lasting anesthesia effect in children and also could cause traumatic injury to soft tissues a substitute injection technique is needed. This study compared the two infiltration and block techniques for extraction of mandibular primary first molars. Materials and methods: in this clinical experimental study forty children aging 5 to 8 years were chosen having the required conditions for the extraction of mandibular primary first bilateral molars. This study was conducted based on cross over design. The patients were received a block injection in first right molar and then received an infiltration injection on the other side at the second session respectively. The patient pain was recorded at the instance of injection and extraction on based on SEM scale.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013052012710N2**

Registration date: **2013-06-11, 1392/03/21**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2013-06-11, 1392/03/21

Registrant information

Name

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Name of organization / entity

Dental University of Khorasgan

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Recruitment status

Recruitment complete

Funding source

Personal

Expected recruitment start date

2013-06-22, 1392/04/01

Expected recruitment end date

2013-07-23, 1392/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of "Infiltration" and "Block" Technique in Control of Extraction Pain of First Primary Mandibular Molars in 5-8 Years Old Children

Public title

Comparison of two local anesthesia techniques for primary dentition extraction

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: children aging 5-8 years old; body health and not illness or pain; frankle + or ++ ; need to extraction of mandibular primary first bilateral molars and the inspection of minimum root length. Exclusion

criteria: not referral patient and the erosion of tooth root.

Age

From **5 years** old to **8 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Crossover

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Dental school of Islamic Azad University of khorasgan

Street address

Dental school, Islamic Azad University of khorasgan, arghavanieh boulevard, Khorasgan, Isfahan

City

isfahan

Postal code

Approval date

2009-05-30, 1388/03/09

Ethics committee reference number

88030905501

Health conditions studied

1

Description of health condition studied

Local anesthesia

ICD-10 code

Y48.3

ICD-10 code description

Local anaesthetics

Primary outcomes

1

Description

Pain

Timepoint

After intervention

Method of measurement

Sound Eye Motor

Secondary outcomes

1

Description

Treatment acceptance

Timepoint

After intervention

Method of measurement

Visual

Intervention groups

1

Description

Use of Block Technique

Category

Treatment - Other

2

Description

Use of infiltration technique

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Isfahan professional clinics

Full name of responsible person

Street address

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Dental Faculty, Islamic Azad University Khorasgan
isfahan

Full name of responsible person

Benyamin Modarres

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City

Isfahan

Grant name

Grant code / Reference number**Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding sourceDental Faculty, Islamic Azad University Khorasgan
isfahan**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****Name of organization / entity**

Islamic Azad University Khorasgan

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Web page address**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*