

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Aug 2026

Comparison of anesthetic efficacy of 4% articaine and 2% lidocaine for maxillary primary molar buccal infiltration during routine dental treatment in 4-6years old children

Protocol summary

Summary

In this study, the efficacy of articaine 4% and lidocaine 2% on anesthesia of first primary molars by infiltration injections will be compared in children 4-6 years old. In this double blind randomized clinical trial, 74 children aged 4-6 years attending pediatric departments of the Tabriz Dental School and they are candidates for the first primary molar pulpotomy, will be selected if they Provided the inclusion criteria. After giving the necessary explanations and obtaining consent from their parents, they will be divided randomly into two groups by Randlist software. In group 1, injections of buccal infiltration by two-thirds of articaine 4% with epinephrine of 1 /100,000 carpuls, and in the group 2 , injections of buccal infiltration by two-thirds of the lidocaine 2% with epinephrine of 1/1, 80000 carpuls will be informed; It should be noted: Prior to injection, the anesthetic agents will be prepared in the coded syringes of the same type by a person who does not have an intervention in the study . This code will only be disclosed during data analysis; therefore, neither researcher nor patient will be informed of the grouping of patients. after 5 minutes the treatment will be performed; and the anesthesia created in the two groups will be examined by observing the child's response during the dental work using the SEM scale (sound / eye / motor) . Children whose teeth are hyperemic or necrosis will be excluded.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017101036699N1**
Registration date: **2017-11-13, 1396/08/22**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-11-13, 1396/08/22

Registrant information

Name

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Name of organization / entity

Tabriz University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research Tabriz University of Medical Sciences

Expected recruitment start date

2017-11-22, 1396/09/01

Expected recruitment end date

2017-12-11, 1396/09/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of anesthetic efficacy of 4% articaine and 2% lidocaine for maxillary primary molar buccal infiltration during routine dental treatment in 4-6years old children

Public title

2

should be noted that injections and all operations will be performed by a same pediatric dentist

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Pediatrics Department of the Tabriz Dentistry Faculty

Full name of responsible person

Doctor Maryam Pourkazemi

Street address

Pediatrics Department, Dentistry Faculty, Golgasht st., Azadi st., Tabriz

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Tabriz University of Medical Sciences

Full name of responsible person

Dr. Mohamadreza Rashidi

Street address

Third Floor, Central Building No. 2 , Tabriz University of Medical Sciences, Golgasht st., Tabriz

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Tabriz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice chancellor for research, Tabriz University of Medical Sciences

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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Name of organization / entity

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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