Clinical Trial Protocol
Iranian Registry of Clinical Trials

01 Jun 2026

Comparison of Effect of Bupivacaine and Lidocaine as Local Anesthetics on Incidence of Flare-up after Root Canal Therapy

Protocol summary

Summary

The purpose of this study was to compare the effect of Bupivacaine and Lidocaine as local anesthetics on the incidence of flare-up after root canal therapy. A total of 60 patients who presented to the office of 3 endodontists were invited to participate in this double blind study. Patients had no history of cardiovascular disease, hypersensitivity to amide types of local anesthetics, renal failure, or hyperthyroidism. The patients were randomly assigned into one of two groups: 0.5 percent Bupivacaine 1/200000 Epinephrine or 2 percent Lidocaine 1/100000 Epinephrine. After root canal therapy, the extent of postoperative pain was measured in 48 hours and categorized in 4 scores, 0 to 3.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138809082785N1**
Registration date: **2010-05-29, 1389/03/08**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2010-05-29, 1389/03/08

Registrant information

Name

Safoora Sahebi

Name of organization / entity

Shiraz University of Medical Sciences, Dental School

Country

Iran (Islamic Republic of)

Phone

+98 71 1626 3193

Email address

sahebis@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

without

Expected recruitment start date

2009-08-01, 1388/05/10

Expected recruitment end date

2009-12-29, 1388/10/08

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Effect of Bupivacaine and Lidocaine as Local Anesthetics on Incidence of Flare-up after Root Canal Therapy

Public title

Comparison of Effect of Bupivacaine and Lidocaine as Local Anesthetics on Incidence of Flare-up after Root Canal Therapy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients without heart disease, allergic to amid group anesthesia, renal failure, hyperthyroidism, Exclusion criteria: patient’s noncooperation

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size
Target sample size: **60**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Shiraz University of Medical Sciences
Street address
Dental School, Ghomabad St.
City
Shiraz
Postal code
7195615878
Approval date
empty
Ethics committee reference number
230/1/88

Health conditions studied

1

Description of health condition studied
Post operative pain after endodontic treatment
ICD-10 code
K08.8
ICD-10 code description
Other specified disorders of teeth and supporting structures

Primary outcomes

1

Description
pain after endodontic treatment
Timepoint
12, 24, 48 hours after the procedure
Method of measurement
visiual analoge scale

Secondary outcomes

empty

Intervention groups

1

Description
bupivacaine 0.5% with 1/200000 epinephrine, one dose, 1.8 ml for block or infiltration annesthesia
Category
Treatment - Drugs

2

Description
Lidocaine 2%, one dose, with epinephrine 1/100000, for block or infiltration anesthesia
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Dental clinic of Shiraz Dental School
Full name of responsible person
Dr. Safoora Sahebi
Street address
Ghomabad street, Shiraz Dental School
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shiraz University of Medical Sciences
Full name of responsible person
Dr Safrooa Sahebi
Street address
Shiraz Dental School,
City
Shiraz,
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shiraz 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

Contact

Name of organization / entity
Shiraz University of Medical Sciences
Full name of responsible person
Dr. Safoora Sahebi
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Assistant Professor
Other areas of specialty/work
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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)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty