

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

Evaluation of efficacy of pain vibrator in reduction of dental injection pain

Protocol summary

Study aim

Determining the effect of vibrator apparatus on pain relief during dental anesthesia injections

Design

A randomized controlled clinical trial with Control and parallel groups. The sample size is 36 and the study phase is 3.

Settings and conduct

Patients who referred to the dental clinics of Hamadan University of Medical Sciences and require standardized bilateral and identical dental injections for one treatment will be selected. In this study, blindness will not be performed.

Participants/Inclusion and exclusion criteria

Inclusion criterion: Requiring standard bilateral dental injections. Non-inclusion criterion: needing concurrent surgery

Intervention groups

In the intervention group, on one side a standard injection of one carpal volume without the use of a vibrator done and on the opposite side, the same injection is performed in the same way as a standard carpal volume, but without the use of a vibrator in the vicinity of the injection site. In the control group, standard injection is performed with one carpal volume without the use of the vibrator.

Main outcome variables

Pain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170117032025N6**

Registration date: **2020-03-21, 1399/01/02**

Registration timing: **registered_while_recruiting**

Last update: **2020-03-21, 1399/01/02**

Update count: **0**

Registration date

2020-03-21, 1399/01/02

Registrant information

Name

Arash Khalili

Name of organization / entity

Hamadan University Of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 81 3838 0320

Email address

a.khalili@umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-02-20, 1398/12/01

Expected recruitment end date

2020-05-21, 1399/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of efficacy of pain vibrator in reduction of dental injection pain

Public title

Efficacy of vibrator device on dental injection's pain

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Requiring standard bilateral dental injections

Exclusion criteria:

History of vibrator use

Age

No age limit

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: 36

Randomization (investigator's opinion)

Randomized

Randomization description

Participants were divided into six blocks of size 6 based on random block allocation. Three samples from each block were placed in the experimental group and three samples in the control group.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Hamadan University of Medical Sciences

Street address

Shahid Fahmideh boulevard

City

Hamadan

Province

Hamadan

Postal code

7615665175

Approval date

2019-10-26, 1398/08/04

Ethics committee reference number

IR.UMSHA.REC.1398.608

Health conditions studied**1****Description of health condition studied**

Pain during the dental procedure

ICD-10 code

K08.3

ICD-10 code description

Retained dental root

Primary outcomes**1****Description**

Pain

Timepoint

During dental procedure

Method of measurement

By The visual analogue scale (VAS) index

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: On one side a standard injection of one carpel volume without the use of a vibrator done and on the opposite side, the same injection is performed in the same way as a standard carpal volume, but without the use of a vibrator in the vicinity of the injection site.

Category

Treatment - Surgery

2**Description**

In the control group, standard injection is performed with one carpel volume without the use of the vibrator.

Category

Treatment - Surgery

Recruitment centers**1****Recruitment center****Name of recruitment center**

Dental clinics affiliated to Hamadan University of Medical Sciences

Full name of responsible person

Dr Ali Heidari

Street address

Shahid Fahmideh street

City

Hamadan

Province

Hamadan

Postal code

6517838698

Phone

+98 81 3525 0182

Email

aliheidari55@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Dr Saeed Bashirian

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

Yes

Title of funding source

Hamedan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

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**

Hamedan University of Medical Sciences

Full name of responsible person

Dr Ali Heidari

Position

Faculty Member

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

Contact**Name of organization / entity**

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Full name of responsible person

Dr Ali Heidari

Position

Faculty Member

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

Contact**Name of organization / entity**

Hamedan University of Medical Sciences

Full name of responsible person

Arash Khalili

Position

Faculty Member

Latest degree

Master

Other areas of specialty/work

Nursery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be 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