Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Evaluation of the effect of tissue adhesive and suture techniques on the postoperative pain after the tooth extraction

Protocol summary

Study aim

 Evaluation the effect of tissue adhesive and suture techniques on the postoperative pain after the tooth extraction

Design

The clinical trial consisted of two randomized double-blind parallel groups on 18 patients. Random allocation Software version 1 was used for randomization.

Settings and conduct

At Yazd school of dentistry, either the left or right premolar will be randomly extracted by a surgical resident, then it will be sutured using 3.0 Silk thread (Supasil Co., made in Iran). In order to measure the pain intensity after the surgery, each patient will be given a visual analogue scale (VAS) form to complete. The patient will be asked to record their pain intensity on a chart at 5, 12, 24 and 48 hours after the tooth extraction. After two weeks, the patient will be required to attend the school for following steps of the treatment. The patient's first premolar on the other side will be extracted by the resident and the silent tooth will be covered with mucous adhesive. The VAS form will be returned to the patient to record their pain intensity 5, 12, 24 and 48 hours later.

Participants/Inclusion and exclusion criteria

Inclusion criteria : People without systemic disease - No history of allergic to any drugs - With good oral hygiene. At first written consent will be obtained from the patient. Exclusion criteria: Fear of dentistry

Intervention groups

Intervention group 1:Mucosal adhesive Intervention group 2:Suture

Main outcome variables

Pain intensity is the main variable which will be measured based on the Visual Analogue Scale at 5-12-24 and 48 hours after tooth extraction.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210306050604N1**
Registration date: **2021-06-29, 1400/04/08**
Registration timing: **retrospective**

Last update: **2021-06-29, 1400/04/08**
Update count: **0**

Registration date

2021-06-29, 1400/04/08

Registrant information

Name
Mohsen Barzegar

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 35 3820 8342

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-04-12, 1400/01/23

Expected recruitment end date

2021-04-13, 1400/01/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effect of tissue adhesive and suture techniques on the postoperative pain after the tooth extraction

Public title
Evaluation of the effect of tissue adhesive and suture on the postoperative pain
Purpose
Health service research
Inclusion/Exclusion criteria
Inclusion criteria:
People without systemic diseases No history of allergies to any drugs With good oral hygiene At first written consent will be obtained from the patient
Exclusion criteria:
Fear of extraction teeth
Age
No age limit
Gender
Both

Phase
N/A
Groups that have been masked

- Participant
- Data analyser

Sample size
Target sample size: **18**
Randomization (investigator's opinion)
Randomized
Randomization description
In this study, 18 qualified patients will be selected. For each patient, the first premolars will be extracted in the first session and the first premolars on the opposite side of the same jaw will be extracted in the second session and additionally the wound will be covered with sutures or mucosal adhesive. All the patients will be numbered (1 to 18). First, using Random allocation software version 1 and block random allocation method, we will determine the random sequence for numbers 1 to 18. For each number, either the mucosal adhesive (A) or sutures (B) interventions will be applied either in the first turn or in the second turn. Totally, 18 pair blocks (an A&B pair block for each patient) will be identified. In order to blind the random allocation, the random allocation list will be given a third party who knows nothing about the interventions and will be asked on the phone to choose intervention A or B for the patient.
Blinding (investigator's opinion)
Double blinded
Blinding description
In order to blind the study in both directions, the patient and the statistical consultant will not know which side of the tooth is pulled at each stage and which technique is used to cover the wound.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Shahid Sadouqi School of Yazd Dentistry
Street address
Dahe Fajr Ave,Shahid Sadouqi School of Dentistry of Yazd
City
Yazd
Province
Yazd
Postal code
8914881167
Approval date
2020-06-22, 1399/04/02
Ethics committee reference number
IR.SSU.REC.1399.066

Health conditions studied

1

Description of health condition studied
Evaluation of the effect of tissue adhesive and suture techniques on the postoperative pain after the tooth extraction
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Pain intensity in patients
Timepoint
5, 12, 24, and 48 hours after tooth extraction.
Method of measurement
By (VAS) Visual Analogue Scale

Secondary outcomes

empty

Intervention groups

1

Description
First Intervention group: After injection of Lidocaine 2% 1.100000(Darou Pakhsh- Iran), one of premolars on the left or right side will be extracted by a surgical resident and it will be sutured using Supasil (3.0 silk thread made in Supa Medical Devices) according to figure eight.

Category
Treatment - Other

2

Description
Intervention group 2 will attend the school again after two weeks and their first premolar on the other side will be extracted by the resident and the silent tooth will be covered with mucous adhesive. To use mucosal adhesive, first disinfect the wound with normal saline and select the ora-aid mucous adhesive (TBM company, made in South Korea) in the appropriate size. Then dry the wound area with a wet swab, put the adhesive on the silent tooth and press it for 5 to 10 seconds to stick to the wound.
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Sadouqi School of Dentistry of Yazd
Full name of responsible person
Mohsen Barzegar
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Yazd University of Medical Sciences
Full name of responsible person
Maryam Kazemipor
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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
Yazd 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
Yazd University of Medical Sciences
Full name of responsible person
Mohsen Barzegar
Position
Assistant Professor
Latest degree
Specialist
Other areas of specialty/work
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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