Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Investigating the effectiveness of the topical use of curcumin on the wound healing process after molar teeth extraction

Protocol summary

Study aim
Determining the effect of topical application of curcumin on the process of socket healing and reduction of pain in extraction of molar teeth

Design
A simple randomization method (coin flip) is used to assign patients to two groups.

Settings and conduct
In the intervention group, 500 mg of curcumin capsule mixed with 2 ml of normal saline is placed on a gel tampon and then placed in the wound. In the control group, only 2 ml of normal saline is placed on the tampon gel and then placed in the wound. The patient does not know the type of intervention.

Participants/Inclusion and exclusion criteria
Patients who are candidates for extraction of non-preservable molar teeth are included in the study if they wish. Also, patients with vascular or blood disorders, users of exogenous corticosteroids and anticoagulants such as aspirin, patients with a history of asthma and allergies, patients with uncontrolled systemic disorders, patients with uncontrolled respiratory, digestive, kidney and lung cardiovascular diseases, Patients with a history of head and neck radiotherapy or chemotherapy, with dry mouth, with a history of creating a dry socket after tooth extraction, users of removable prostheses, pregnant women and nursing mothers, patients with systemic fungal infections, acute infections and tuberculosis (active or off) are excluded from the study. Also, the exclusion criteria include patients who have used painkillers or anti-inflammatories in the week leading up to the surgery. Patients who consume any amount of cigarettes, alcohol, drugs, or stimulants, or the target tooth has been symptomatic in the week leading up to the surgery, will also be excluded from the study.

Intervention groups
The first group (control group) will be treated with placebo and the second group (intervention group) will be treated with curcumin.

Main outcome variables
Wound healing status; The amount of pain

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20231205060267N1**
Registration date: **2023-12-06, 1402/09/15**
Registration timing: **prospective**

Last update: **2023-12-06, 1402/09/15**
Update count: **0**

Registration date
2023-12-06, 1402/09/15

Registrant information

Name
Mostafa Sharifzadeh

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 21 7795 3395

Email address
mostafa.a.sharifzadeh@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-12-22, 1402/10/01

Expected recruitment end date
2024-09-21, 1403/06/31

Actual recruitment start date
empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effectiveness of the topical use of curcumin on the wound healing process after molar teeth extraction

Public title

curcumin effect in tooth extraction healing

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Candidates for extraction of unmaintainable molar teeth

Exclusion criteria:

Patients with vascular or blood disorders Users of exogenous corticosteroids and anticoagulants such as aspirin Patients with a history of asthma and allergies Patients with uncontrolled systemic disorders, patients with uncontrolled respiratory, digestive, renal and pulmonary cardiovascular diseases Patients with a history of head and neck radiotherapy or chemotherapy Patients with dry mouth Patients with a history of developing a dry socket after tooth extraction Consumers of removable prostheses pregnant women and nursing mothers Patients with systemic fungal infections, acute infections and tuberculosis (active or silent) Patients who have used painkillers or anti-inflammatories in the week leading up to tooth extraction Patients who consume any amount of cigarettes, alcohol, drugs or stimulants The tooth in question has been symptomatic in the week leading up to the extraction

Age

No age limit

Gender

Both

Phase

3

Groups that have been masked

- Participant
- Care provider

Sample size

Target sample size: **34**

Randomization (investigator's opinion)

Randomized

Randomization description

A simple randomization method (coin flip) is used to assign patients to two groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

A gel tampon will be applied to all patients participating in this clinical trial. In the intervention group, the tampon gel is impregnated with curcumin as the drug, and in the control group, it is impregnated with normal saline as a placebo. Therefore, the participants and their companions, who are responsible for taking care of them, are aware that they are participating in this clinical trial, but they are not aware of which of the two intervention or control groups they belong to. From their point of view, intervention has been carried out for them.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of dental school of Tehran medical science Islamic Azad university

Street address

No. 9, 9th Neyestan St., Pasdaran St.

City

Tehran

Province

Tehran

Postal code

1946853314

Approval date

2023-11-27, 1402/09/06

Ethics committee reference number

IR.IAU.DENTAL.REC.1402.111

Health conditions studied

1

Description of health condition studied

Wound healing status after molar tooth extraction

ICD-10 code

S01.5

ICD-10 code description

Open wound of lip and oral cavity

Primary outcomes

1

Description

Wound healing score in clinical examination

Timepoint

Wound healing scoring on day 7 and 14 after tooth extraction

Method of measurement

Scoring of wound healing is based on four criteria: tissue color, response to palpation, the presence of granulation tissue, and the state of the wound margin during clinical examination.

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: 500 mg of curcumin capsule mixed with 2 ml of normal saline is placed on a gel tampon and then placed on the wound.
Category
Rehabilitation

2

Description
Control group: Only 2 ml of normal saline is placed on the tampon gel and then placed on the wound.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Dental school clinic of Tehran medical science Islamic Azad university
Full name of responsible person
Morteza Neshandar
Street address
No. 9, 9th Neyestan, Pasdaran St.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University
Full name of responsible person
Arash Azizi - Research Deputy of Dental school of Tehran Islamic Azad university of medical sciences
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Phone
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Email
info@tmsiau.ir
Web page address
https://tms.iau.ir/dental/fa
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Islamic Azad University
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
Islamic Azad University
Full name of responsible person
Mostafa Sharifzadeh
Position
Student
Latest degree
A Level or less
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
All data potentially shareable after de-identifying individuals (in thesis form)
When the data will become available and for how long
The access period starts after the results are printed
To whom data/document is available
All those who have permission to access the theses archive of the Faculty of Dentistry library of Tehran Azad University of Medical Sciences.
Under which criteria data/document could be used
for research
From where data/document is obtainable
Faculty of Dentistry library of Tehran Azad University of Medical Sciences
What processes are involved for a request to access data/document
Go to the library of the Faculty of Dentistry of Tehran Azad University of Medical Sciences, present your ID card and receive the thesis
Comments