

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 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)

Phone

+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

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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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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

Other areas of specialty/work

Dentistry

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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**Person responsible for updating data****Contact****Name of organization / entity**

Islamic Azad University

Full name of responsible person

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Position

Student

Latest degree

A Level or less

Other areas of specialty/work

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