

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jun 2026

Evaluation of pain and swelling after extraction of impacted mandibular third molar in two different types of suturing.

Protocol summary

Summary

The aim of this study is to evaluate pain and swelling after extraction of impacted mandibular third molar in two different types of suturing. Inclusion criteria are: having the same degree of impaction in both mandibular third molars; age between 15 to 25 years; nonsmoker; no systemic disease; no pregnancy or lactation; no medication taken in the last 6 months that could influence wound healing after surgery; no inflammation; absence of pain on the impacted molar region. 14 cases who meet the inclusion criteria are selected from the referred patients to the oral and maxillofacial surgery department of School of Dentistry, Tehran University of Medical Sciences, International Campus. In this split mouth technique study, after surgical removal of both mandibular third molars, reflected flap is turned back to its place and sutured in a figure of eight technique and on the other side reverse figure of eight technique is used to close the flap. Facial measurements from tragus to the lip commissure is used for horizontal swelling, and from lateral cantus to the mandibular angle for vertical swelling and are recorded just before and 7 days after surgery. Severity of pain is assessed by a VAS questionnaire and is filled by the patient on day 7 post operation. Since both type of sutures are regularly used in wound closure, there is no special suture related complication for the patients.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201311263750N1**
Registration date: **2014-01-11, 1392/10/21**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2014-01-11, 1392/10/21

Registrant information

Name

Bahman Derakhshan

Name of organization / entity

International Campus, Tehran University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

International Campus, Tehran University of Medical Sciences

Expected recruitment start date

2013-11-24, 1392/09/03

Expected recruitment end date

2014-01-23, 1392/11/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of pain and swelling after extraction of impacted mandibular third molar in two different types of suturing.

Public title

Evaluation of pain and swelling after extraction of impacted mandibular third molar in two different types of suturing.

Purpose

Treatment

Inclusion/Exclusion criteria

Age between 15 to 25 years; nonsmoker; no systemic disease and to be in good general health; no pregnancy or lactation; no medication in the last 6 months that could influence wound healing after surgery; no inflammation, such as acute pericoronitis or periodontal disease, in the oral cavity and without any pain on the impacted molar region

Age

From **15 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **14**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Patients are randomly divided into two groups by flipping a coin. Suturing technique of reverse figure of eight is compared to figure of eight technique as the control group. Patients and the observer are blinded to the suture design.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tehran University of Medical Sciences

Street address

6th floor, Ghods Ave., Central University Bulding, Keshavarz Blvd

City

Tehran

Postal code

Approval date

2013-11-23, 1392/09/02

Ethics committee reference number

92/D/130/1910

Health conditions studied

1

Description of health condition studied

Mandibular Impacted 3rd Molar

ICD-10 code

K01.1

ICD-10 code description

An impacted tooth is a tooth that has failed to erupt because of obstruction by another tooth.

Primary outcomes

1

Description

Pain

Timepoint

Days 0 and 7

Method of measurement

Visual Analog Scale

2

Description

Vertical Swelling

Timepoint

Days 0 and 7

Method of measurement

Paper strip (mm)

3

Description

Horizontal Swelling

Timepoint

Days 0 and 7

Method of measurement

Paper strip (mm)

Secondary outcomes

empty

Intervention groups

1

Description

Suturing technique of reverse figure of eight is compared to figure of eight technique as the control group

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

International Campus, Tehran University of Medical Sciences

Full name of responsible person

Dr. Bahman Derakhshan

Street address

School Of Dentistry, Mahan Blvd, Khani Abad No

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Dr. Seyed Jalal Pourhashemi

Street address

School of Dentistry, Mahan Blvd, Khani-Abad No

City

Tehran

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Tehran 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

International Campus, Tehran University of Medical Sciences

Full name of responsible person

Dr. Bahman Derakhshan

Position

Faculty member/ Assistant professor

Other areas of specialty/work

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Web page address

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