

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The evaluation and comparison of the clinical and radiographic immediate implant in mandibular molar teeth with and without grafting materials

Protocol summary

Study aim

Evaluating and comparing the clinical and radiographic aspects of immediate implant in mandibular teeth with and without allograft

Design

Simple randomized 2-3 phase clinical trial with parallel groups in a single-blind fashion on 30 patients.

Settings and conduct

The hospital of the Mashhad University of Medical Sciences

Participants/Inclusion and exclusion criteria

Including criteria: Patients in the need of implant surgery. Patients with at least 2 mm width of keratinized gum across the hopeless tooth. Patients with at least 2 mm of the buccal implant to the internal side of the buccal bone distance. Excluding criteria: Patients with periodontitis in the hopeless region of the tooth. Patients that after extracting the hopeless tooth will experience dehiscence and fenestration in the extraction site.

Intervention groups

Intervention group: Implanting will be performed by local anesthesia. The teeth extraction is being performed by atraumatic and by removing the roots first to maintain the bony filament. After extraction, the best region for implantation is chosen. According to the implant manufacturer, the place would be drilled and then, the implant will be inserted and closed to the area with healing. At last, the grafting material would be added. Control group: Implanting will be performed by local anesthesia. The teeth extraction is being performed by atraumatic and by removing the roots first to maintain the bony filament. After extraction, the best region for implantation is chosen. According to the implant manufacturer, the place would be drilled and then, the implant will be inserted and closed to the area with healing. At last, no material would be added.

Main outcome variables

Bone degeneration

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220108053669N2**

Registration date: **2022-04-22, 1401/02/02**

Registration timing: **prospective**

Last update: **2022-04-22, 1401/02/02**

Update count: **0**

Registration date

2022-04-22, 1401/02/02

Registrant information

Name

Peyman Esmaeili Fard Barzegar

Name of organization / entity

Lorestan University

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-06-22, 1401/04/01

Expected recruitment end date

2022-09-23, 1401/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The evaluation and comparison of the clinical and radiographic immediate implant in mandibular molar teeth with and without grafting materials

Public title

The evaluation of immediate implant in molar teeth

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

The patients who need implant surgery The patients with hopeless peritooth keratinized gum width of more than 2 mm. The patients whose implant buccal distance to the internal surface of buccal bone is more than 2 mm.

Exclusion criteria:

The patients who are suffering from periodontitis in the hopeless region. the patients who after extracting the hopeless tooth suffered from dehiscence or fenestration in extraction region

Age

From **22 years** old to **58 years** old

Gender

Both

Phase

2-3

Groups that have been masked

- Participant

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomized, in which all patients who were referred to this hospital and had the including criteria, were completely randomly entered and examined statistically until the number reached the desired patients.

Blinding (investigator's opinion)

Single blinded

Blinding description

The patients in both groups were unaware of the kind of material used (Single-blind), but the nurse who administered the drug and the scientists were aware of the contained drug.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Mashhad University of Medical Sciences

Street address

Knowledge and Health City - In the end of Shahid Fakouri Blvd (In the front of Fakouri 94)

City

Mashhad

Province

Razavi Khorasan

Postal code

99191-91778

Approval date

2019-10-05, 1398/07/13

Ethics committee reference number

IR.MUMS.DENTISTRY.REC.1399.068

Health conditions studied

1

Description of health condition studied

tooth Implant

ICD-10 code

Z96.5

ICD-10 code description

Presence of tooth-root and mandibular implants

Primary outcomes

1

Description

Pocket depth

Timepoint

After implanting, 3 months after surgery and 3 months after loading.

Method of measurement

It is evaluated clinically

2

Description

Bleeding on probing (BOP)

Timepoint

After implanting, 3 months after surgery and 3 months after loading.

Method of measurement

It is evaluated clinically.

3

Description

The distance between bone and border of implant

Timepoint

After implanting, 3 months after surgery and 3 months after loading.

Method of measurement

With the help of radiograph.

4

Description

The thickness of keratinized gum.

Timepoint

After implanting, 3 months after surgery and 3 months after loading.

Method of measurement

Clinically

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Implanting will be performed by local anesthesia. The teeth extraction is being performed by atraumatic and by removing the roots first to maintain the bony filament. After extraction, the best region for implantation is chosen. According to the implant manufacturer, the place would be drilled and then, the implant will be inserted and closed to the area with healing. At last, the grafting material would be added.

Category

Treatment - Drugs

2

Description

Control group: Implanting will be performed by local anesthesia. The teeth extraction is being performed by atraumatic and by removing the roots first to maintain the bony filament. After extraction, the best region for implantation is chosen. According to the implant manufacturer, the place would be drilled and then, the implant will be inserted and closed to the area with healing. At last, no material would be added.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mashhad University of Medical Sciences hospital

Full name of responsible person

Dr. Nahid Nasrabadi

Street address

7GJP+VPQ, Daneshgah street, Mashhad, Khorassan Razavi, Iran

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9177899191

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nasrabadi.nahid@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Nahid Nasrabadi

Street address

Daneshgah street, Mashhad

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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

Mashhad 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

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Nahid Nasrabadi

Position

Assistant professor of periodontology

Latest degree

Specialist

Other areas of specialty/work

Dentistry

Street address

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Nahid Nasrabadi

Position

Assistant professor of periodontology

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

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Full name of responsible person

Dr. Nahid Nasrabadi

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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