

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Sep 2026

Effect of different implant placement depths on crestal bone thickness of the implant area

Protocol summary

Study aim

Evaluation of different implant placement depths on the crestal bone levels the implant area

Design

A clinical trial with the control group, parallel groups, without blinding (split-mouth, cross over), non-randomize

Settings and conduct

This study will be performed in the implant ward of Mashhad Dental School with a split-mouth design, which means that there was an intervention and control group in a patient's mouth. if the patient will need two implants, one will place subcrestal (3 mm below the bone crest) and one will place at the level of the bone crest.

Participants/Inclusion and exclusion criteria

Inclusion criteria: In terms of physical condition, according to the American Society of Anesthesiologists (ASA), ASA I or ASA II; informed consent; Patients older than 18 years; patients who need to place 2 or 3 implants; no general contraindications (low blood pressure, bradycardia, sinus disorder, unstable high blood pressure, and liver disorders); No lesions and malignancies at the surgical site; No smoking. Exclusion criteria: occurring medical problems during surgery, patient refusing to follow-up session.

Intervention groups

The study design will be split mouth. In the control group, the implant will place at bone crestal level, and in the control group, the implant will place at 3 mm subcrestal level of bone.

Main outcome variables

crestal bone levels immediately, 3 months and 6 months after surgery

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180130038558N2**

Registration date: **2022-02-15, 1400/11/26**

Registration timing: **prospective**

Last update: **2022-02-15, 1400/11/26**

Update count: **0**

Registration date

2022-02-15, 1400/11/26

Registrant information

Name

Naser Sargolzaie

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 51 3602 5063

Email address

sargolzaie@mums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-02-20, 1400/12/01

Expected recruitment end date

2022-09-22, 1401/06/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of different implant placement depths on crestal bone thickness of the implant area

Public title

Effect of different implant placement depths on crestal bone thickness of the implant area

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

American Society of Anesthesiologists (ASA) physical status classification system, patient should be ASA I or ASA II (normal healthy patient or patient with mild systemic disease) Patient with informed consent. Need to place 2 or 3 implants No general contraindications (patients with low blood pressure, bradycardia, sinus disorder, unstable high blood pressure, and liver disorders.) No lesions and malignancies at the surgical site; No smoking. Patients older than 18 years

Exclusion criteria:**Age**

From **18 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **25**

More than 1 sample in each individual

Number of samples in each individual: **2**

dental implant placement at subcrestal and equicrestal

Randomization (investigator's opinion)

Not randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Mashhad University of Medical Sciences

Street address

Central Building of Mashhad University of Medical Sciences, University Street, Mashhad, Iran

City

Mashhad

Province

Razavi Khorasan

Postal code

9187811111

Approval date

2021-05-12, 1400/02/22

Ethics committee reference number

IR.MUMS.DENTISTRY.REC.1400.036

Health conditions studied**1****Description of health condition studied**

edentulous alveolar ridge

ICD-10 code

K08.2

ICD-10 code description

Atrophy of edentulous alveolar ridge

2**Description of health condition studied**

Dental implant

ICD-10 code

Z96.5

ICD-10 code description

Presence of tooth-root and mandibular implants

Primary outcomes**1****Description**

the level of implant crestal bone

Timepoint

Immediately, 3 months and 6 months after surgery

Method of measurement

Digital periapical radiography

Secondary outcomes

empty

Intervention groups**1****Description**

Control group: After anesthesia injection, a crystal incision will be done the tissue. the flap will be removed with the help of periosteal elevator. After the bone drilling, The bone-level implant will be placed in the crestal level of bone with the two-stages protocol.

Category

Treatment - Other

2**Description**

Intervention group: After anesthesia injection, a crystal incision will be done the tissue. the flap will be removed with the help of periosteal elevator. After the bone drilling, The bone-level implant will be placed at 3 mm below the bone crest with two-stages protocol.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mashhad dental school

Full name of responsible person

Naser Sargolzaie

Street address

Mashhad Dental School, Vakilabad St., Mashhad

City

Mashad

Province

Razavi Khorasan

Postal code

9187811111

Phone

+98 51 3602 5063

Email

sargolzaie@mums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Majid Ghayyur Mobarehan

Street address

Deputy of Research and Technology, Ghorashi Building, University Street, Mashhad

City

Mashhad

Province

Razavi Khorasan

Postal code

9138813944

Phone

+98 51 3841 1538

Fax

+98 51 3843 0249

Email

vcresraech@mums.ac.ir

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

Naser Sargolzaie

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

Street address

No85 , West hamed 8

City

Mashad

Province

Razavi Khorasan

Postal code

9187811111

Phone

+98 51 3602 5063

Email

sargolzaie@mums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Naser Sargolzaie

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

Street address

No85 , West hamed 8

City

Mashad

Province

Razavi Khorasan

Postal code

9187811111

Phone

+98 51 3602 5063

Email

sargolzaie@mums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Naser Sargolzaie

Position

Associate professor

Latest degree

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Other areas of specialty/work

Dentistry

Street address

No85 , West hamed 8

City

Mashad

Province

Razavi Khorasan

Postal code

9187811111

Phone

+98 51 3602 5063

Email

sargolzaie@mums.ac.ir

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 collected data would be shared for all researchers after the participants were unidentified.

When the data will become available and for how long

The access to data will be started 6 months after publication

To whom data/document is available

The data would only be available for people working in academic institutions.

Under which criteria data/document could be used

It is allowed to use the data for meta-analysis and systematic reviews.

From where data/document is obtainable

The data can be obtained via email, from the corresponding researcher

What processes are involved for a request to access data/document

The new research proposal and the process details should be e-mailed to the corresponding researcher in order to get the access permission

Comments