Clinical Trial Protocol
Iranian Registry of Clinical Trials

28 Sep 2026

Effect of subcrestal implant versus crestal implant on marginal bone loss: a randomized clinical trial

Protocol summary

Study aim
To assess the effect of subcrestal implant versus crestal implant on marginal bone loss
Design
This is a randomized clinical trial with control group, phase III, in which eligible patients will be randomly assigned through the drawing of lots to the intervention and control groups
Settings and conduct
This study will be performed in the School of Dentistry in Hamadan city on 28 eligible patients. The patients will be randomly assigned to the intervention and control groups through the drawing of lots. Blinding is not possible in this study.
Participants/Inclusion and exclusion criteria
Inclusion criteria: Age of 20 to 70 years; Candidate for dental implant; Exclusion criteria: Smoking; Systemic disease of bone loss; Uncontrolled diabetes; Keratinized gums; Uncontrolled periodontitis;
Intervention groups
Intervention group: Placing subcortical implant one to two millimeters below the crest bone Control group: Placing cortical implant at the edge of the crest bone
Main outcome variables
Primary outcome: Bone loss

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20120215009014N415**
Registration date: **2022-01-10, 1400/10/20**
Registration timing: **prospective**

Last update: **2022-01-10, 1400/10/20**
Update count: **0**
Registration date
2022-01-10, 1400/10/20

Registrant information
Name
Jalal Poorolajal
Name of organization / entity
Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 81 1838 0090
Email address
poorolajal@umsha.ac.ir

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2022-01-26, 1400/11/06
Expected recruitment end date
2022-07-21, 1401/04/30
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Effect of subcrestal implant versus crestal implant on marginal bone loss: a randomized clinical trial

Public title
Effect of subcrestal implant versus crestal implant on marginal bone loss
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age of 20 to 70 years; Candidate for dental implant;

Exclusion criteria:
Smoking; Systemic disease of bone loss; Uncontrolled diabetes; Keratinized gums; Uncontrolled periodontitis;

Age
From **20 years** old to **70 years** old

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **28**

Randomization (investigator's opinion)
Randomized

Randomization description
Random assignment of the patients to the intervention and control groups through the drawing of lots. To do this, we prepare two sheets and write "intervention" on one sheet and "control" on another. Then, by referring each patient, one of the sheets will be randomly taken and the patient will be assigned to the intervention or control group.

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 Hamadan University of Medical Sciences

Street address
Vice-chancellor for Research and Technology, Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City
Hamadan

Province
Hamadan

Postal code
6517838695

Approval date
2021-11-27, 1400/09/06

Ethics committee reference number
IR.UMSHA.REC.1400.694

Health conditions studied

1

Description of health condition studied
Chronic periodontitis

ICD-10 code
K05.3

ICD-10 code description
Chronic periodontitis

Primary outcomes

1

Description
Bone loss

Timepoint
3 an 6 months after implant

Method of measurement
Through radiography

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Placing subcortical implant one to two millimeters below the crest bone

Category
Treatment - Surgery

2

Description
Control group: Placing cortical implant at the edge of the crest bone

Category
Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
School of Dentistry in Hamadan city

Full name of responsible person
Leila Shahsavand Baghdadi

Street address
School of Dentistry, Hamadan University of Medical Sciences, Shahid Fahmideh Ave.

City
Hamadan

Province
Hamadan

Postal code
6517838695

Phone
+98 81 3838 0572

Email
shahsavand.leila@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr. Reza Shokoohi
Street address
Hamadan University of Medical Sciences, Shahid Fahmideh Ave
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3838 0717
Email
info.research@umsha.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Hamedan 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
Hamedan University of Medical Sciences
Full name of responsible person
Leila Shahsavand Baghdadi
Position
Dentistry Student
Latest degree
Medical doctor
Other areas of specialty/work
Dentistry
Street address
School of Dentistry, Hamadan University of Medical Sciences, Shahid Fahmideh Ave.
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3838 0572
Email
shahsavand.leila@yahoo.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr. Morad Hedayatipanah
Position
Periodontist
Latest degree
Medical doctor
Other areas of specialty/work
Dentistry
Street address
School of Dentistry, Hamadan University of Medical Sciences, Shahid Fahmideh Ave.
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3838 0572
Email
dr.hedayatipanah@yahoo.com

Person responsible for updating data

Contact
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr. Jalal Poorolajal
Position
Professor of Epidemiology
Latest degree
Ph.D.
Other areas of specialty/work
Epidemiology
Street address
School of Public Health, Hamadan University of Medical Sciences, Shahid Fahmideh Ave
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3838 0090
Email

poorolajal@umsha.ac.ir

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