

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of stability of Implants, inserted in ridges augmented with mineralized cortical cancellous allograft blocks with implants in native bone using Resonance Frequency Analysis

Protocol summary

Summary

The aim of present study was to compare the stability of implants in ridges augmented with mineralized cortical cancellous allograft blocks with implants in native bone using Resonance Frequency Analysis. 9 patients who need implant therapy but have inadequate ridge width and 9 patients with adequate ridge width referred to the department of periodontology, Mashhad university of Medical Sciences were enrolled. For 9 subjects with insufficient ridge, ridges were augmented with mineralized cortical cancellous allograft blocks. After 6 months, implants were inserted. In control group, implants were inserted in the same place as the test group. ISQ is used for measurement of implants stability on third and sixth month after implants placement.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138812081601N2**

Registration date: **2010-04-10, 1389/01/21**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2010-04-10, 1389/01/21

Registrant information

Name

Amir Moeintaghavi

Name of organization / entity

Mashhad Dental School

Country

Iran (Islamic Republic of)

Phone

+98 51 1882 9501

Email address

moeentaghavia@mums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Mashhad University of Medical Sciences

Expected recruitment start date

2009-02-19, 1387/12/01

Expected recruitment end date

2009-12-20, 1388/09/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of stability of Implants, inserted in ridges augmented with mineralized cortical cancellous allograft blocks with implants in native bone using Resonance Frequency Analysis

Public title

Comparison of stability of Implants, inserted in ridges augmented with mineralized cortical cancellous allograft blocks with implants in native bone using Resonance Frequency Analysis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Need to dental implant with inadequate ridge width, good systemic conditions, lack of contraindications for oral surgery, Signing informed consent Exclusion criteria: Bone diseases or any systemic condition that affect bone healing, Infection or

any unpredictable complications
Age
From **30 years** old to **60 years** old
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **18**
Randomization (investigator's opinion)
N/A
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
Mashhad University of Medical Sciences
Street address
Mashhad University of Medical Sciences
City
Mashhad
Postal code
Approval date
2008-10-08, 1387/07/17
Ethics committee reference number
87216

Health conditions studied

1
Description of health condition studied
Atrophy of edentulous alveolar ridge (Implant stability in augmented alveolar ridge)
ICD-10 code
K08.2
ICD-10 code description
Atrophy of edentulous alveolar ridge

Primary outcomes

1
Description

Implant stability
Timepoint
after 3 and 6 months
Method of measurement
Resonance Frequency Analysis

Secondary outcomes

empty

Intervention groups

1
Description
Implant placement in allograft
Category
Treatment - Surgery

2
Description
Implant placement in native bone
Category
Treatment - Surgery

Recruitment centers

1
Recruitment center
Name of recruitment center
Mashhad Dental School
Full name of responsible person
Dr. Amir Moeintaghavi
Street address
Mashhad Dental School
City
Mashhad

Sponsors / Funding sources

1
Sponsor
Name of organization / entity
Vice chancellor for Research, Mashhad University of Medical Sciences
Full name of responsible person
Dr. Tavakol afshari
Street address
Daneshgah Ave., Mashhad University of Medical Sciences
City
Mashhad
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for Research, Mashhad 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
Mashhad Dental School
Full name of responsible person
Dr. Amir Moeintaghavi
Position
Associate Professor
Other areas of specialty/work
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Person responsible for updating data

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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