Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparative histological and radiological results of Nano-crystalline hydroxyapatite (Ostim) and Bio-oss used in maxillary sinus augmentation: a human study

Protocol summary

Summary
The aim of present study was Comparative histological and radiological results of Nano-crystalline hydroxyapatite (Ostim) and Bio-oss used in maxillary sinus augmentation: a human study the critical inclusion and exclusion criteria were 1-maxillary partial (unilateral or bilateral) edentulism or complete edentulism 2-Rresidual bone height between the sinus floor and the alveolar crest less than 5 mm. 10 patients (5 patients test group and 5 patients control group) selected randomly and sinus augmentation was performed with Ostim (test group) and Bio-oss (control group) .Parameters evaluated were percentage of new bone formation,and percentage of residual graft material and residual bone height between the sinus floor and the alveolar crest in baseline and after sinus augmentation. .

General information

Acronym
IRCT registration information
IRCT registration number: **IRCT201204157128N2**
Registration date: **2012-12-10, 1391/09/20**
Registration timing: **retrospective**

Last update:
Update count: **0**
Registration date
2012-12-10, 1391/09/20

Registrant information
Name
Adileh Shirmohammadi
Name of organization / entity
Tabriz University of Medical Sciences
Country
Iran (Islamic Republic of)
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Recruitment status
Recruitment complete
Funding source
Tabriz university of medical science

Expected recruitment start date
2012-04-03, 1391/01/15
Expected recruitment end date
2012-12-05, 1391/09/15
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparative histological and radiological results of Nano-crystalline hydroxyapatite (Ostim) and Bio-oss used in maxillary sinus augmentation: a human study

Public title
Comparative histological and radiological results of two bone grafts used in maxillary sinus augmentation
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria; maxillary partial (unilateral or bilateral) edentulism or complete edentulism; Rresidual bone height between the sinus floor and the alveolar crest less than 5 mm. The exclusion criteria: smokers; pregnant women; maxillary sinus pathology; cystic lesions of the maxillary sinus; systemic disease; e.g unstable diabetes; heart disease; malignancies; radiotherapy for head and neck especially maxilla; autoimmune diseases; metabolic

diseases that becomes difficult to the healing of the soft and hard tissue (e.g osteoporosis, hyperparathyroidism ,...); steroids and immunosuppressive drugs; bisphosphonates drug; untreated periodontal disease and periapical disease especially in teeth; which are close to the sinuses.

Age
From **40 years** old to **80 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **10**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Tabriz University of Medical Sciences- Dentistry faculty

Street address
Golgasht street,daneshgah street,Tabriz, Iran

City
Tabriz

Postal code

Approval date
2012-09-27, 1391/07/06

Ethics committee reference number
91127

Health conditions studied

1

Description of health condition studied
maxillary sinus augmentation due to bone resorbtion

ICD-10 code
M86-M90

ICD-10 code description
Other osteopathies

Primary outcomes

1

Description
new bone formation after sinus augmentation

Timepoint
After 5 month

Method of measurement
Microscope

Secondary outcomes

1

Description
residual bone graft after 5 month

Timepoint
After 5 month

Method of measurement
microscope

2

Description
bone density

Timepoint
After 5 month

Method of measurement
CBCT

Intervention groups

1

Description
control group: use of bio-oss in sinus augmentation

Category
Treatment - Surgery

2

Description
Intervention:use of ostim in sinus augmentation

Category
Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
Dentistry faculty of Tabriz, Periodontics ward

Full name of responsible person
Dr Adileh Shirmohamadi

Street address
Golgasht street, Daneshgah street,

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Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tabriz University of Medical Sciences

Full name of responsible person
Dr. Pourabbas

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Tabriz University of Medical Sciences, Golgasht street, Daneshgah street, Tabriz, Iran

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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
Tabriz 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
Tabriz University of Medical Sciences

Full name of responsible person
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Position
Periodontics resident

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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Periodontist/associated professor

Other areas of specialty/work

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Full name of responsible person
Adileh Shirmohamadi

Position
Periodontist/associated professor

Other areas of specialty/work

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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