Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Implant stability with and without platelet-rich fibrin in patients with tooth loss: a randomized clinical trial

Protocol summary

Study aim
To determine the implant stability with and without platelet-rich fibrin in patients with tooth loss
Design
This a randomized clinical trial, phase II, in which 30 eligible patients will be randomly assigned to the intervention and control groups
Settings and conduct
The eligible patients with at least two teeth lost who will refer to School of Dentistry during the study period will be enrolled in the trial
Participants/Inclusion and exclusion criteria
Inclusion criteria: Age of 18 to 60 years Having at least 2 teeth lost Enough remaining bone volume for receiving the implant with at least diameter of 4 mm and length of 11.5 mm Exclusion criteria: Any lesion in the oral cavity Using immunosuppressive drugs Liver, blood, or renal diseases Pregnancy
Intervention groups
Intervention group: The implant with at least diameter of 4 mm and length of 11.5 mm with platelet-rich fibrin Control group: The implant with at least diameter of 4 mm and length of 11.5 mm without platelet-rich fibrin
Main outcome variables
Primary outcome: Implant stability immediately after surgery and 1 and 4 weeks after that through physical examination

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20120215009014N213**
Registration date: **2018-03-15, 1396/12/24**
Registration timing: **registered_while_recruiting**

Last update: **2018-03-15, 1396/12/24**
Update count: **0**
Registration date
2018-03-15, 1396/12/24

Registrant information
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Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2018-03-01, 1396/12/10
Expected recruitment end date
2018-09-22, 1397/06/31
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Implant stability with and without platelet-rich fibrin in patients with tooth loss: a randomized clinical trial

Public title
Implant stability with and without platelet-rich fibrin in patients with tooth loss
Purpose
Treatment
Inclusion/Exclusion criteria

Inclusion criteria:
Age of 18 to 60 years Having at least 2 teeth lost Enough remaining bone volume for receiving implant with at least diameter of 4 mm and length of 11.5 mm
Exclusion criteria:
Any lesion in oral cavity Using immunosuppressive drugs Liver, blood, or renal diseases Pregnancy

Age
From **18 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**
More than 1 sample in each individual
Number of samples in each individual: **0**
Two teeth loss in every patient will be randomly assigned to the intervention and control groupس using the tossing coin
Actual sample size reached: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Random assignment of the patients to the intervention and control groups through tossing coin

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
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Approval date
2018-02-24, 1396/12/05

Ethics committee reference number
IR.UMSHA.REC.1396.817

Health conditions studied

1

Description of health condition studied
Implant stability

ICD-10 code
M27.6

ICD-10 code description
Endosseous dental implant failure

Primary outcomes

1

Description
Implant stability

Timepoint
Immediately after surgery and 1 and 4 weeks after that

Method of measurement
Through physical examination

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: The implant with at least diameter of 4 mm and length of 11.5 mm with platelet-rich fibrin

Category
Treatment - Devices

2

Description
Control group: The implant with at least diameter of 4 mm and length of 11.5 mm without platelet-rich fibrin

Category
Treatment - Devices

Recruitment centers

1

Recruitment center
Name of recruitment center
School of Dentistry
Full name of responsible person
Dr Ali Ghamari
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Sponsors / Funding sources

1

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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
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
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Resident of Periodontics
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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