Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparative evaluation of periodontal Indices in the newly extracted alveolar cavity technique and delayed implants in patients who were candidate for implant surgery

Protocol summary

Study aim

Comparative evaluation of periodontal indices in immediate and delayed implants

Design

In this study, 98 patients were selected in interventional groups of immediate and delayed implants. All patients indicated implant placement in the above methods. Finally, periodontal indices were evaluated in a comparative way.

Settings and conduct

This study was performed following two techniques: 1) Immediate technique: The tooth was a-traumatically extracted and washed into saline solution and curettage. The drilling was done in the right position and the area that implant was inserted. If the torque was above N / CM 35 and had a good initial stability, after 24 hours after the surgery, the interim crown was referred to the prosthetic and placed after 4 to 3 months of permanent crown surgery. At this stage, the papillary index, the bleeding index, and the probing pocket depths were measured, and the PA radiography was used to evaluate the radiolucency and also to determine the rate of bone resorption. The patient then returned 8 months to re-measure the indicators. 2) Delayed technique: In this technique, toothless cases that were candidates for the implant were selected and after anesthetizing and incision, mucousal flap was performed and exposed bone and implants were implanted. After 3 months, the patient was referred and the crown was placed. In this stage, the above indicators were measured and also were measured 8 months later.

Participants/Inclusion and exclusion criteria

Age over 25 years old, Plaque index of 20%, Having no active infection at the site of implantation

Intervention groups

First intervention group: Implant loading by immediate method (implantation immediately after tooth extraction). Second intervention group: Delayed implant loading (common method

Main outcome variables

Success rate and treatment stability Bone resorption radiolucency Gingival bleeding Pocket depth

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181128041779N1**
Registration date: **2019-01-02, 1397/10/12**
Registration timing: **retrospective**

Last update: **2019-01-02, 1397/10/12**
Update count: **0**

Registration date

2019-01-02, 1397/10/12

Registrant information

Name

Fateme Yoonesi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 5697 1653

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-12-22, 1396/10/01

Expected recruitment end date

2018-06-22, 1397/04/01

Actual recruitment start date
2018-01-21, 1396/11/01
Actual recruitment end date
2018-06-22, 1397/04/01
Trial completion date
2018-10-23, 1397/08/01

Scientific title
Comparative evaluation of periodontal Indices in the newly extracted alveolar cavity technique and delayed implants in patients who were candidate for implant surgery

Public title
Comparison of immediate and delayed implants
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age over 25 years old Having plaque index of 20% Not having an active infection at the implant site
Exclusion criteria:
Having systemic diseases that prevent osseointegration Having physical or mental disability or para-function Being a smoker Having Bruxism Having Clenching
Age
From **25 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **72**
Actual sample size reached: **98**
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
The Ethics Committee of Mashhad University of Medical Sciences
Street address
Mashhad dental school, Vakilabad boulevard.
City
Mashhad
Province
Razavi Khorasan
Postal code
9177948959
Approval date
2017-11-22, 1396/09/01
Ethics committee reference number
IR.mums.sd.REC.1394.287

Health conditions studied

1

Description of health condition studied
Immediate implants and delayed implants
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
The success rate and stability of the treatment, bone resorption, having or not having radiolucency, amount of gingival bleeding, depth of pocket
Timepoint
3-4 months after surgery, 8 months after the first examination
Method of measurement
By using papilla index, bleeding index, probing pocket depths

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Immediate technique: The tooth was a-traumatically extracted and washed into saline solution and curettage. The drilling was done in the right position and the area that implant was inserted. If the torque was above N / CM 35 and had a good initial stability, after 24 hours after the surgery, the interim crown was referred to the prosthetic and placed after 4 to 3 months of permanent crown surgery. At this stage, the papillary index, the bleeding index, and the probing pocket depths were measured, and the PA radiography was used to evaluate the radiolucency and also to determine the rate of bone resorption. The patient then returned 8 months to re-measure the indicators.
Category
Treatment - Surgery

2

Description
Intervention group: Delayed technique: In this technique, toothless cases that were candidates for the implant were selected and after anesthetizing and incision, mucousal flap was performed and exposed bone and implants were implanted. After 3 months, the patient was referred and the crown was placed. In this stage, the above indicators were measured and also were measured 8 months later.

Category
Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
Mashhad dental school

Full name of responsible person
Dr. Naser Sargolzaei

Street address
Mashhad dental school, Vakilabad boulevard

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
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Full name of responsible person
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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
Mashhad University of Medical Sciences

Proportion provided by this source
30

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

2

Sponsor

Name of organization / entity
Research Deputy of Mashhad Dental School

Full name of responsible person
Dr. Hossein Bagheri

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Email
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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
Research Deputy of Mashhad Dental School

Proportion provided by this source
30

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
Dr. Naser Sargolzaei

Position
Assistant professor

Latest degree

Specialist

Other areas of specialty/work
Dentistry

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Person responsible for scientific inquiries

Contact

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Full name of responsible person
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Position
Professor

Latest degree
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Person responsible for updating data

Contact

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Full name of responsible person
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Position
Dentistry student

Latest degree
A Level or less

Other areas of specialty/work
Dentistry

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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
Not applicable

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Not applicable

Analytic Code
Not applicable

Data Dictionary
Not applicable