

Clinical Trial Protocol

Iranian Registry of Clinical Trials

29 Jun 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

fateme_yoonesi@yahoo.com

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

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences

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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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

Name of organization / entity

Mashhad University of Medical Sciences

Full name of responsible person

Dr. Hamidreza Arab

Position

Professor

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

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Full name of responsible person

Fatemeh Younesi

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