

# 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

**Street address**

Mashhad dental school, Vakilabad boulevard

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## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Mashhad University of Medical Sciences

**Full name of responsible person**

Dr. Naser Sargolzaei

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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**

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

**Street address**

Mashhad dental school, Vakilabad boulevard

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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**

Dentistry

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**Person responsible for updating data**

**Contact**

**Name of organization / entity**

Mashhad University of Medical Sciences

**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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Younesif941@mums.ac.ir

**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