

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jul 2026

Comparative Evaluation of the effect of platelet rich fibrin and acellular dermal matrix on soft tissue thickness in patients receiving dental implants

Protocol summary

Study aim

Comparison of the effect of platelet rich fibrin and acellular dermal matrix on soft tissue thickness in patients receiving dental implants

Design

Two arm parallel group randomized trial with blinded outcome assessment and data analysis

Settings and conduct

The study will be run in Dentistry faculty of Mashhad University of Medical Sciences. After receiving informed consent, a blind calibrated examiner will measure the tissue thickness. Measurements will be repeated after 3 months.

Participants/Inclusion and exclusion criteria

Inclusion criteria: patient who need dental implants in posterior mandible with thin gingival biotype. Exclusion criteria: any medical contraindication for dental implants; need for soft tissue or hard tissue augmentation.

Intervention groups

Platelet rich fibrin and acellular dermal matrix will be used for soft tissue thickening in intervention and control group, respectively.

Main outcome variables

Soft tissue thickness in the area of implant placement

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200914048713N1**

Registration date: **2021-11-30, 1400/09/09**

Registration timing: **prospective**

Last update: **2021-11-30, 1400/09/09**

Update count: **0**

Registration date

2021-11-30, 1400/09/09

Registrant information

Name

moein khojaste

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 51 8832 2300

Email address

khojastehm981@mums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-01-05, 1400/10/15

Expected recruitment end date

2022-06-05, 1401/03/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative Evaluation of the effect of platelet rich fibrin and acellular dermal matrix on soft tissue thickness in patients receiving dental implants

Public title

Effect of platelet rich fibrin on soft tissue thickness

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patient who need dental implants in posterior mandible

Less than 2 mm soft tissue thickness Adequate width and height of the bone healthy soft tissue Lack of previous hard tissue augmentation Lack of previous soft tissue augmentation
Exclusion criteria:
Age less than 18 and more than 60 years old Medical contraindication for dental implants Untreated periodontitis Uncontrolled diabetes mellitus Smokers and alcoholic patients

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

Randomized

Randomization description

Block randomization will be done using "randomization.com" website. All data will be placed in opaque sealed envelop and will be opened by nurse before surgery.

Blinding (investigator's opinion)

Double blinded

Blinding description

The person who measures soft tissue thickness at baseline and follow up is totally blind to the type of intervention. Person who analyzes the data is also blind. blinding of the patients and the surgeon is not possible.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Mashhad University of Medical Sciences

Street address

Vakil abad street, vest door of ferdowsi university, faculty of dentistry

City

Mashhad

Province

Razavi Khorasan

Postal code

9177899191

Approval date

2021-08-04, 1400/05/13

Ethics committee reference number

IR.MUMS.DENTISTRY.REC.1400.081

Health conditions studied

1

Description of health condition studied

Thin soft tissue

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Soft tissue thickness

Timepoint

Baseline, 3 months postoperative

Method of measurement

Endodontic reamer, gauge with 0.1 mm accuracy

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: 3 layers of platelet rich fibrin will be placed under soft tissue before suturing.

Category

Treatment - Other

2

Description

Control group: An acellular dermis membrane with 0.6-1 mm thickness will be placed under patients soft tissue before suturing.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mashhad Dental School

Full name of responsible person

Amir Moeen Taghavi

Street address

Faculty of dentistry, West door of Ferdowsi University, Vakil Abad street

City

Mashhad
Province
Razavi Khorasan
Postal code
9177899191
Phone
+98 51 3882 9501
Email
RAMResearch@mums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Dr Hossein Bagheri
Street address
Faculty of dentistry, West door of Ferdowsi University,
Vakil Abad street
City
Mashhad
Province
Razavi Khorasan
Postal code
9177899191
Phone
+98 51 3806 7278
Email
RAMResearch@mums.ac.ir

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

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
Mashhad University of Medical Sciences
Full name of responsible person
Amir Moein Taghavi
Position
profrrsor
Latest degree
Specialist

Other areas of specialty/work

Dentistry

Street address

Faculty of dentistry, West door of Ferdowsi University,
Vakil Abad street

City

Mashhad

Province

Razavi Khorasan

Postal code

9177899191

Phone

+98 51 3806 7278

Email

moeentaghavia@mums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Farid Shiezadeh
Position
Assistant professor
Latest degree
Specialist
Other areas of specialty/work
Dentistry
Street address
Faculty of dentistry, West door of Ferdowsi University,
Vakil Abad street
City
Mashhad
Province
Razavi Khorasan
Postal code
9177899191
Phone
+98 51 3806 7278
Email
fshd1365@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Moein Khojasteh
Position
Resident
Latest degree
Specialist
Other areas of specialty/work
Dentistry
Street address
Faculty of dentistry, West door of Ferdowsi University,
Vakil Abad street
City
Mashhad

Province

Razavi Khorasan

Postal code

9177899191

Phone

+98 51 3806 7278

Email

moein.khojaste@yahoo.com

Sharing plan**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Necessary information will be sent to the journal that publishes the article.

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available