

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jun 2026

Comparative clinical and radiographic evaluation of L-PRF and EMD use in regeneration of intrabony periodontal defects with GTR technique in patients with periodontitis

Protocol summary

Summary

Aim of this study is to compare the effect of using Emdogain and Leukocyte-Platelet Rich Fibrin in Guided Tissue Regeneration (GTR) technique. Samples will be selected from patients referring to Periodontal Department of Hamedan Dental School who has at least one periodontal defect that needs reconstruction and bone grafting. Also patients should not be smoker, pregnant or having systemic disease. Sample size is determined regarding to previous studies and amount of all patients attended to this center. Samples will be divided into three groups, GTR, GTR with using Emdogain and GTR with using Leukocyte-Platelet Rich Fibrin by simple sampling. In intervention and treatment stage, surgeries will perform for patients divided in all three groups. Inflammation and amount of bone formation will be evaluated by clinical and radiographic factors before treatment and three months after surgery.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017022716141N3**
Registration date: **2017-05-08, 1396/02/18**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-05-08, 1396/02/18

Registrant information

Name

Janet Moradi Haghgou

Name of organization / entity

Dental Faculty

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Hamedan University of Medical Sciences

Expected recruitment start date

2016-05-01, 1395/02/12

Expected recruitment end date

2017-03-01, 1395/12/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative clinical and radiographic evaluation of L-PRF and EMD use in regeneration of intrabony periodontal defects with GTR technique in patients with periodontitis

Public title

Comparative evaluation of two different regenerative materials in reconstruction of periodontal defects

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: At least have one intrabony periodontal defect. Exclusion criteria: Smoking; Pregnancy; Systemic disease.

Age

No age limit
Gender
Both
Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **45**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features
Simple sampling will be done by sealed envelopes.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Hamedan University of Medical Sciences
Street address
Dental School, Hamedan University of Medical Sciences, Shahid Fahmideh st.
City
Hamedan
Postal code
Approval date
2016-04-24, 1395/02/05
Ethics committee reference number
IR.UMSHA.REC.1395.66

Health conditions studied

1

Description of health condition studied

Chronic Periodontitis
ICD-10 code
K05.3
ICD-10 code description
Chronic pericoronitis Periodontitis: NOS complex simplex

Primary outcomes

1

Description

Bone formation
Timepoint
3 months after surgery
Method of measurement
Probing depth

2

Description
Bone formation
Timepoint
3 month after surgery
Method of measurement
Radiography

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: Guided tissue regeneration surgeries will perform for the patients with periodontal defects with GTR technique and Emdogain added to grafting bone material.

Category

Treatment - Surgery

2

Description

Intervention group 2: Guided tissue regeneration surgeries will perform for the patients with periodontal defects with GTR technique and L-PRF added to grafting bone material.

Category

Treatment - Surgery

3

Description

Control group: Guided tissue regeneration surgeries will perform for the patients with periodontal defects with GTR technique alone.

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center
Hamedan University of Medical Sciences
Full name of responsible person
Erfan Abbasi
Street address
City
Hamedan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research of Dental School of Hamedan University of Medical Sciences

Full name of responsible person

Mohammad Zandi

Street address

Dental School, Hamedan University of Medical Sciences, Shahid Fahmideh st.

City

Hamedan

Grant name

-

Grant code / Reference number

-

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Vice chancellor for research of Dental School of Hamedan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

Person responsible for general inquiries

Contact**Name of organization / entity**

Periodontal assistant

Full name of responsible person

Erfan Abbasi

Position

Post graduate

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Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty