Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effects of topical erythropoietin gel on non-surgical treatment of chronic periodontitis: a split mouth randomized clinical trial

Protocol summary

Summary

The purpose of this study is to evaluate effects of topical erythropoietin gel on nonsurgical treatment of chronic periodontitis. In this study 15 patients whith chronic periodontitis which have 2 cross arch area whith more than 5mm probing depth are choosed. After scaling and root planing(SRP) erythropoietin is applied in one side (test side) and pacebo is applied in other side(control side).Before SRP, baseline examination and recording of all study parameters (gingival index(GI), bleeding index(BOP), plaque index (PI), probing depth (PD), clinical attachment level(CAL) is perofrmed by UNC15 probe by a blinde examiner. Patients are treated with full mouth supra- and sub-gingival scaling and root planning, then two contralateral teeth in the similar anatomic regions (two canines, two premolars or two molars) were randomly assigned in test or control groups with coin toss method. EPO is applied in one side(test) and placeb in other side(control) for 5 times during the first 2 weeks. patient are asked not to use any mouthwash or antibitics during the study period. After 3 monthes, clinical parameters are re-evaluated to evaluate effects of topical erythropoietin gel on non-surgical treatment of chronic periodontitis

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017091636203N1**
Registration date: **2017-11-06, 1396/08/15**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2017-11-06, 1396/08/15

Registrant information

Name

Hoori Asl Roosta

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

the study is funded by executive research team.

Expected recruitment start date

2017-09-16, 1396/06/25

Expected recruitment end date

2018-01-16, 1396/10/26

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of topical erythropoietin gel on non-surgical treatment of chronic periodontitis: a split mouth randomized clinical trial

Public title

Effects of topical erythropoietin gel on non-surgical treatment of chronic periodontitis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Age>18; No SRP during last 6 monthes; at least 2 cross arch teeth with more than 5mm probing depth. Exclusion criteria: Patients whit uncontrolled

systemic disease(diabetes mellitus, cancer,heart disease); Systemic antibiotics taken within previous 2 months; Enrollment in an other clinical trials; Current smokers; Patients with aggressive or narcotizing types of periodontitis.

Age
From **18 years** old to **90 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **15**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Triple blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee Of Dental School Of Tehran University Of Medical Sciences

Street address
Dental School Of Tehran University Of Medical Sciences, North Karegar Street ,Tehran

City
Tehran

Postal code

Approval date
2017-08-12, 1396/05/21

Ethics committee reference number
IR.TUMS.DENTISTRY.REC.1396.3139

Health conditions studied

1

Description of health condition studied
chronic periodontitis

ICD-10 code
k05.4

ICD-10 code description
chronic periodontitis

Primary outcomes

1

Description
Probing Depth

Timepoint
Before SRP and after months

Method of measurement
By UNC-15 probe

2

Description
Clinical Attachment Level

Timepoint
Before SRP and after3 monthes

Method of measurement
UNC-15 probe

3

Description
Bleeding On Probing

Timepoint
Before SRP and after monthes

Method of measurement
Sulcular bleeding index (muhleman)

4

Description
Gingival index

Timepoint
Before SRP and after3 monthes

Method of measurement
By observation. no inflamation=0 mild inflamation and color change which doesnt involve papilla=1, inflamation like group 1 which involves papilla=2 shine and redness and inflamation at margin or papilla=3

5

Description
Plaque Index

Timepoint
Before SRP and after3 monthes

Method of measurement
By moving prob on tooth surface, no plaque=0, plaque in cervical1/3 only recognizable by prob =1, plaque in cervial1/3 reconizable by abservation=2

Secondary outcomes

empty

Intervention groups

1

Description
In test group after measusing the parameters , SRP will be done.Then a complex of 1cc of EPO gel(4000IU) and 1

cc of carboxymethyl cellulose gel will be applied in the site for 5 times durin 2 weeks.

Category

Treatment - Drugs

2

Description

In control group after measusing the parameters , SRP will be done.Then 2 cc of carboxymethyl cellulose gel will be applied in the site for 5 times durin 2 weeks.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Dental School Of Tehran University Of Medical Sciences

Full name of responsible person

Street address

Dental School Of Tehran University Of Medical Sciences, Karegar Street, Tehran

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Research and Technology Department Of Tehran University Of Medical Science

Full name of responsible person

Dr Mohammadali Sahraiyan

Street address

Research and Technology Department, Second floor, Central Organization of Tehran University, Ghods Street, Keshavarz Blvard

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Research and Technology Department Of Tehran University Of Medical Science

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

Dental School Of Tehran University Of Medical Sciences

Full name of responsible person

Mahsa Vafaei

Position

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Person responsible for scientific inquiries

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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