Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Effect of periodontal treatment on the C-reactive protein, plasma fibrinogen and white blood cell count in advanced periodontitis

Protocol summary

Summary

Aim: To evaluate the effect of periodontal treatment on the C-reactive protein, plasma fibrinogen levels and white blood cell counts in advanced periodontitis. Thirty two 19-56 years-old subjects with severe generalized periodontitis were recruited from patients referred to the periodontics department, faculty of Dentistry, Guilan University of Medical Sciences. Intervention under study was Standard non-surgical periodontal therapy within two appointments including scaling and root planning with simultaneous lavage of chlorhexidine 0.1% from the tip of ultrasonic instrument into the pockets. Periodontal parameters and inflammatory markers[C-reactive protein (CRP), and plasma fibrinogen] and also white blood cell count (WBC) were evaluated prior to and four months after the intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138706031081N1**
Registration date: **2009-01-04, 1387/10/15**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2009-01-04, 1387/10/15

Registrant information

Name

Golpar Radafshar

Name of organization / entity

Guilan University of Medical Sciences, School of dentistry

Country

Iran (Islamic Republic of)

Phone

+98 13 1323 0775

Email address

golshad@gums.ac.ir

Recruitment status

Recruitment complete

Funding source

Guilan University of Medical Sciences , Pro-vice-chancellor for Research

Expected recruitment start date

2007-04-04, 1386/01/15

Expected recruitment end date

2007-10-22, 1386/07/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of periodontal treatment on the C-reactive protein, plasma fibrinogen and white blood cell count in advanced periodontitis

Public title

Effect of periodontal treatment on the level of serum inflammatory biomarkers

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Being systemically healthy, No history of previous periodontal therapy and antibiotic use during the past three months, Body mass index between 20-27, Existence of at least 20 standing teeth without untreated periapical lesions, At least 15% of sites with more than or equal to 5 mm of clinical attachment loss and pocket depth. Radiographic evidence of bone loss Exclusion criteria: Drugs such as: anticoagulants, steroids, anti-inflammatory drugs, immunosuppressant drugs, statins.

Systemic diseases or conditions such as: Arthritis, GI disorders, skin diseases, bronchitis, Diabetes Mellitus, pregnancy, breast feeding and smoking.

Age
From **19 years** old to **56 years** old

Gender
Both

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: **32**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Guilan Universoty of Medical Sciences, Pro-vice-chancellor for research

Street address
Mellat Ave. Namjoo Str. Reasearch secretory building

City
Rasht

Postal code

Approval date
2007-10-06, 1386/07/14

Ethics committee reference number
3/132/1683/ت

Health conditions studied

1

Description of health condition studied
Serum biomarkers in periodontal therapy

ICD-10 code
K05.3

ICD-10 code description
Chronic periodontitis

Primary outcomes

1

Description
Serum CRP levels

Timepoint
Before and four months after the intervention.

Method of measurement
hs-CRP, by Enzyme- linked immunosorbent assay(ELIZA)

2

Description
Plasma fibrinogen levels

Timepoint
Before and four months after the intervention.

Method of measurement
Digital coagulation technique

3

Description
White blood cell counts

Timepoint
Before and four months after the intervention.

Method of measurement
Counts in the peripheral blood samples

Secondary outcomes

1

Description
Probing pocket depth

Timepoint
Before and four months after intervention

Method of measurement
Williams periodontal probe calibrated in millimeters with probe tip of 0.4 mm in width

2

Description
Clinical Attachment Level

Timepoint
Before and four months after the intervention.

Method of measurement
Williams periodontal probe calibrated in millimiters with a probe tip of 0.4mm width

3

Description
Plaque index scores

Timepoint
Before and four months after intervention

Method of measurement
Plaque index OLeary

4

Description
Gingival index

Timepoint

Before and four months after intervention.

Method of measurement

Lenox & Kopezyk bleeding points index

Intervention groups

1

Description

Standard non-surgical periodontal therapy within two appointments including scaling and root planning with simultaneous lavage of chlorhexidine 0.1% from the tip of ultrasonic instrument into the pockets

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Guilan University of Medical Sciences, School of Dentistry

Full name of responsible person

Golpar Radafshar

Street address

Opposite Pardis Hotel, Imam-Khomeini Bulvard,

City

Rasht

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Guilan Universoty of Medical Sciences, Pro-vice-chancellor for research

Full name of responsible person

Susan Komaie

Street address

Namjoo Ave. Mellat St. Pro-vice chancellor for Research building

City

Rasht

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Guilan Universoty of Medical Sciences, Pro-vice-chancellor for research

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

Guilan University of Medical Sciences, School of Dentistry

Full name of responsible person

Golpar Radafshar

Position

Assistant professor in the department of periodontology

Other areas of specialty/work

Street address

Emam Khomeini Blv. Opp. Pardis Hotel

City

Rasht

Postal code

41887-94755

Phone

+98 131 3230775 +98 131 3220060

Fax

+98 131 3230776 +98 0131 7757636

Email

golshad@gums.ac.ir

Web page address

www.gums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Guilan university of medical sciences, School of dentistry

Full name of responsible person

Golpar Radafshar

Position

Assistant professor in the department of periodontology

Other areas of specialty/work

Street address

Emam Khomeini Blv. Opp. Pardis Hotel

City

Rasht

Postal code

41887-94755

Phone

+98 131 3230775 +98 131 3220060

Fax

+98 131 3230776 +98 131 7757636

Email

golshad@gums.ac.ir

Web page address

www.gums.ac.ir

Person responsible for updating data

Contact

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