Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The treatment effect of non-surgical periodontal treatment on blood parameters in patients with chronic periodontitis: a before-after clinical trial

Protocol summary

Study aim
To assess the effect of non-surgical periodontal treatment on blood parameters in patients with chronic periodontitis

Design
This a before-after clinical trial, phase II, in which 31 eligible patients will be randomly assigned to the intervention and control groups

Settings and conduct
The eligible patients with chronic periodontitis who will refer to School of Dentistry during the study period will be enrolled in the trial

Participants/Inclusion and exclusion criteria
Inclusion criteria: Age of 25 to 55 years; Chronic periodontitis; Pocket depth of at least 5 mm Attachment loss at least 3 mm Bleeding during probing Exclusion criteria: A history of trauma or surgery in oral cavity; Using antibiotic during the past 3 months; Using ferrous supplements during the past 3 months; Transfusion during the past 3 months

Intervention groups
Intervention group: Non-surgical periodontal treatment using ultrasonography with input-power of 100 to 240 w and frequency of 50 to 60 Hz and output-power of 3 to 20 w and water pressure o f0.01 to 0.5 mega Pascal and dimension of 115×305×375 Control group: In comparison with before intervention

Main outcome variables
Measuring hematocrit before intervention and one month later through laboratory test Measuring hemoglobin before intervention and one month later through laboratory test Measuring red blood cells before intervention and one month later through laboratory test Measuring CRP before intervention and one month later through laboratory test Measuring LDL/VLDL before intervention and one month later through laboratory test

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20120215009014N212**
Registration date: **2018-03-12, 1396/12/21**
Registration timing: **registered_while_recruiting**

Last update: **2018-03-12, 1396/12/21**
Update count: **0**

Registration date
2018-03-12, 1396/12/21

Registrant information

Name
Jalal Poorolajal

Name of organization / entity
Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 81 1838 0090

Email address
poorolajal@umsha.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2017-12-01, 1396/09/10

Expected recruitment end date
2018-04-20, 1397/01/31

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The treatment effect of non-surgical periodontal treatment on blood parameters in patients with chronic periodontitis: a before-after clinical trial

Public title
The treatment effect of non-surgical periodontal treatment on blood parameters in patients with chronic periodontitis
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age of 25 to 55 years Chronic periodontitis Pocket depth of at least 5 mm Attachment loss at least 3 mm Bleeding during probing
Exclusion criteria:
A history of trauma or surgery in oral cavity Using antibiotic during the past 3 months Using ferrous supplements during the past 3 months Transfusion during the past 3 months
Age
From **25 years** old to **55 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **31**
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
Ethics Committee of Hamadan University of Medical Sciences
Street address
Hamadan University of Medical Sciences, Shahid Fahmideh Ave
City
Hamadan
Province
Hamadan
Postal code
6517838695
Approval date
2017-11-25, 1396/09/04
Ethics committee reference number
IR.UMSHA.REC.1396. 571

Health conditions studied

1

Description of health condition studied
Chronic periodontitis
ICD-10 code
K05.3
ICD-10 code description
Chronic periodontitis

Primary outcomes

1

Description
Measuring hematocrit
Timepoint
Before intervention and one month later
Method of measurement
Through laboratory test

2

Description
Measuring hemoglobin
Timepoint
Before intervention and one month later
Method of measurement
Through laboratory test

3

Description
Measuring red blood cells
Timepoint
Before intervention and one month later
Method of measurement
Through laboratory test

4

Description
Measuring CRP
Timepoint
Before intervention and one month later
Method of measurement
Through laboratory test

5

Description

Measuring LDL/VLDL

Timepoint

Before intervention and one month later

Method of measurement

Through laboratory test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Non-surgical periodontal treatment using ultrasonography with input-power of 100 to 240 w and frequency of 50 to 60 Hz and output-power of 3 to 20 w and water pressure o f0.01 to 0.5 mega Pascal and dimension of 115×305×375

Category

Treatment - Devices

2

Description

Control group: In comparison with before intervention

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

School of Dentistry

Full name of responsible person

Omid Taherpoor

Street address

School of Dentistry, Hamadan University of Medical Sciences, Shahid Fahmideh Ave.

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6517838695

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omid_tah@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Dr Saeid Bashirian

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Hamadan University of Medical Sciences, Shahid Fahmideh Ave

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info.research@umsha.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Hamedan 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

Hamedan University of Medical Sciences

Full name of responsible person

Omid Taherpoor

Position

Dental Student

Latest degree

Medical doctor

Other areas of specialty/work

Dentistry

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Person responsible for scientific

inquiries

Contact

Name of organization / entity
Hamedan University of Medical Sciences

Full name of responsible person
Dr. Janet Moradi Haghgoo

Position
Periodontist

Latest degree
Specialist

Other areas of specialty/work
Dentistry

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Person responsible for updating data

Contact

Name of organization / entity
Hamedan University of Medical Sciences

Full name of responsible person
Dr Jalal Poorolajal

Position
Professor of Epidemiology

Latest degree
Ph.D.

Other areas of specialty/work
Epidemiology

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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
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available