

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jul 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 of 0.01 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 of 0.01 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 Taherpour

Street address

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

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+98 81 3838 0572

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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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+98 81 3838 0717

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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 Taherpour

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 Haghighoo

Position

Periodontist

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Janet_haghighoo@yahoo.com

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