

Clinical Trial Protocol

Iranian Registry of Clinical Trials

25 Jul 2026

Evaluation of different treatment regimes of hydrogen peroxide and chlorhexidine mouthrinses on dental stain and plaque

Protocol summary

Study aim

Determination and comparison of PI and GMSI indices before and after use in 5 groups with different Method of mouthwash

Design

The samples will consist of 50 patients referring to the department of dentistry. After obtaining written consent, the teeth of the patients are ultimately scraped with ultrasonic instruments. The bass technique is taught to patients. At this time, patients are randomly divided into 5 groups, patients are unaware of which groups they are and are considered to be the same for two mouthwashes. For blindness, we use coding for patients. Each group is trained to use mouthwashes.

Settings and conduct

Isfahan University of Medical Sciences and Dosso is blind

Participants/Inclusion and exclusion criteria

Entry criteria for studying having mild to moderate gingivitis, having at least 12 anterior teeth, and withdrawal criteria: presence of envelopes (> 5mm), use of orthodontic oral prosthesis or applicators, history of antibiotic use during For the past 3 months, smoking and systemic diseases that may affect their periodontal disease.

Intervention groups

Group 1: Use of chlorhexidine mouthwash in the morning - Afternoon hydrogen peroxide mouthwash - Chlorhexidine bleaching at night. Group 2: Use chlorhexidine mouthwash and then immediately hydrogen peroxide in the morning - chlorhexidine and then immediately hydrogen peroxide at night. Group 3: Use hydrogen peroxide mouthwash and then immediately chlorhexidine in the morning - hydrogen peroxide and then immediately chlorhexidine at night. Group 4: Use of chlorhexidine mouthwash in the morning - Chlorhexidine mouthwash at night. Group 5: Use of hydrogen peroxide mouthwash in the morning - Hydrogen Peroxide Mouthwash at Night.

Main outcome variables

Plaque and dental plaque

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20101006004877N28**

Registration date: **2018-06-10, 1397/03/20**

Registration timing: **registered_while_recruiting**

Last update: **2018-06-10, 1397/03/20**

Update count: **0**

Registration date

2018-06-10, 1397/03/20

Registrant information

Name

Jaber Yaghini

Name of organization / entity

Isfahan University of Medical Sciences and Health Services

Country

Iran (Islamic Republic of)

Phone

+98 31 1434 2136

Email address

j_yaghini@dnt.mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-09-23, 1396/07/01

Expected recruitment end date

2018-06-20, 1397/03/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Evaluation of different treatment regimes of hydrogen proxide and chlorhexidine mouthrinses on dental stain and plaque

Public title
Evaluation of different treatment regimes of hydrogen proxide and chlorhexidine mouthrinses on dental stain and plaque

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Mild to moderate periodontitis Have at least 12 anterior teeth
Exclusion criteria:
Use orthodontic or prosthetic appliance Smoking Pocket depth more than 5 Attach loss more than 2

Age
From **20 years** old to **45 years** old

Gender
Both

Phase
3

Groups that have been masked

- Participant
- Care provider

Sample size
Target sample size: **50**

Randomization (investigator's opinion)
Randomized

Randomization description
Systemic randomization

Blinding (investigator's opinion)
Double blinded

Blinding description
Mouthwashes are delivered in unnamed packages and similar to the samples. Each code sample is assigned and the person who measures the indexes does not know which groups are in the sample.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of esfahan University of Medical

Sciences

Street address
Hezar harib street

City
Esfahan

Province
Isfahan

Postal code
8174673461

Approval date
2017-09-25, 1396/07/03

Ethics committee reference number
IR.mui.rec.1396.3.944

Health conditions studied

1

Description of health condition studied

Dental plaque and dental stain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

25/5000Plaque and dental plaque

Timepoint

1 and 4 weeks after entering the patient to study

Method of measurement

1-PI(silness and loe plaque inndex)2-GMSI (gingival modification of the stain index)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: Use of chlorhexidine mouthwash in the morning - Mouthwash with hydrogen peroxide - Chlorhexidine in the nourish

Category

Treatment - Drugs

2

Description

Intervention group 2: Using chlorhexidine mouthwash and then immediately hydrogen peroxide in the morning- chlorhexidine and then immediately hydrogen peroxide at night

Category

Treatment - Drugs

3

Description

Intervention group 3: Use hydrogen peroxide mouthwash and then immediately chlorhexidine in the morning - hydrogen peroxide solution and then immediately chlorhexidine at night

Category

Treatment - Drugs

4

Description

Control group 1: Use of chlorhexidine mouthwash in the morning - Chlorhexidine mouthwash at night

Category

Treatment - Drugs

5

Description

Control group2: Use of hydrogen peroxide mouthwash in the morning - Hydrogen Peroxide Mouthwash at Night

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

School of Dentistry, Isfahan University of Medical Sciences

Full name of responsible person

Dr Jaber Yaghini

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Hezar Jarib street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Dr Jaber Yaghini

Street address

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Phone

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Email

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Esfahan 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

Esfahan University of Medical Sciences

Full name of responsible person

Dr Jaber Yaghini

Position

Associate Professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

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Position

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Person responsible for updating data

Contact
Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
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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