Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Evaluation of different treatment regimes of hydrogen proxide 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)

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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

Isfehan

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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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
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Person responsible for updating data

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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