

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jun 2026

Comparing the effect of chlorhexidine(0.2%), matrica and persica mouthwashes on periodontal indices of children undergoing preventive orthodontic treatment

Protocol summary

Study aim

Determining the effect of three mouthwashes containing chlorhexidine (0.2%), Matrica and Persica on periodontal indices in children undergoing preventive orthodontic treatment

Design

Clinical trial without blinded group and crossover on 16 patients

Settings and conduct

16 children aged 8 to 12 years will be selected from patients of Dental School of Qazvin University of Medical Sciences who use mandible Lingual Arch appliance after presenting the necessary explanations written consent will be taken from the parents. Primary periodontal indices in these patients will then be measured. Chlorhexidine, Matrica, Persica mouthwashes will be used for a period of one week, respectively, after which GI and PI indices are measured on designed teeth. Candidates will be asked to brush their teeth 3 times as instructed. The mouthwash is gargled for 30 seconds half an hour after using a toothbrush and floss. After using the mouthwash, they don't wash their mouth and also don't eat anything. Avoid using toothpaste containing fluoride for an hour before using mouthwashes. After each period, a wash-out time of 2 weeks is considered.

Participants/Inclusion and exclusion criteria

16 children 8 to 12 years old with lingual arch appliance in their mandible. Inclusion criteria: the patient's willingness to cooperate with research; don't suffer from diseases that weaken the immune system; don't suffer from various systemic diseases; do not receive antibiotics at least one month before and during the research period; do not use mouthwash in the past month; absence of periodontitis and do not receive periodontal treatment in the last 6 months. Exclusion criteria: sensitivity to mouthwashes; participants are

reluctant to continue the process of using mouthwashes.

Intervention groups

All participants receive three types of mouthwashes (Chlorhexidine, Matrica, Persica)

Main outcome variables

Plaque index; gingivitis index

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211114053060N1**

Registration date: **2021-12-19, 1400/09/28**

Registration timing: **prospective**

Last update: **2021-12-19, 1400/09/28**

Update count: **0**

Registration date

2021-12-19, 1400/09/28

Registrant information

Name

Ali Naghipour Alamdari

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 4412 0178

Email address

a.naghipouralamdari@qums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-01-10, 1400/10/20

Expected recruitment end date

2022-02-26, 1400/12/07
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty
Scientific title
Comparing the effect of chlorhexidine(0.2%), matrica and persica mouthwashes on periodontal indices of children undergoing preventive orthodontic treatment
Public title
Comparing the effect of three types of mouthwashes on periodontal indices of children undergoing orthodontic treatment
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Patient willingness to cooperate with research Do not suffer from disease that weaken the immune system Do not suffer from various systemic disease Do not use mouthwash in the past month Absence of periodontitis and receiving periodontal treatment in the last six months Do not receive antibiotics at least one month before and during the study period
Exclusion criteria:
Sensitivity to mouthwashes Participants are reluctant to continue the process of using mouthwashes
Age
From **8 years** old to **12 years** old
Gender
Both
Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **16**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Crossover
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Qazvin University of Medical Sciences

Street address

Qazvin University Of Medical Sciences, Bahonar Blvd.

City

Qazvin

Province

Qazvin

Postal code

3415759811

Approval date

2021-06-19, 1400/03/29

Ethics committee reference number

IR.QUMS.REC.1400.119

Health conditions studied

1

Description of health condition studied

Children undergoing preventive orthodontic treatment

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Plaque index

Timepoint

Beginning of research; 7 days after using each mouthwash with two-week washout period

Method of measurement

Sillness and loe with periodontal probe and mirror

2

Description

Gingival Index

Timepoint

Beginning of research; 7 days after using each mouthwash with two-week washout period

Method of measurement

Examination with periodontal probe

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: 16Children 8 to 12 years old undergoing preventive orthodontic treatment 1.Matrica mouthwashes (Barij Essence Oil Company - 50 to 60 drops in half a glass of water, twice a day for 30 seconds), 2.Persica Mouthwashes (Poursina Company - 10 to 15 drops in 15 ml of water twice a day for 30

seconds)) And 3.chlorhexidine mouthwash 0.2% (Iran Najo Company - 15 ml for 30 and twice a day, morning and night) and Subsequently, the individuals will be given one of the studied mouthwashes, and the volunteers will be asked to brush their teeth 3 times a day in the taught way. The mouthwash is gargled for 30 seconds half an hour after using the toothbrush and floss, and then it will be completely removed from the mouth. This operation will be repeated for up to seven days. The best time to use mouthwash will be at night before bed and in the morning after breakfast. After completing the first course and reviewing the indicators, people will not use any mouthwash for two weeks (as a wash-out period). Then , people enter a new phase of testing, which receives a different mouthwash from the first period, and the operation of the previous period will be repeated. After completing the second course and reviewing the indicators, the candidates enter the wash out course again for two weeks, after which the third study period begins. In this study, all people will be exposed to all three types of mouthwash.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Dental School Of Qazvin University Of Medical Sciences

Full name of responsible person

Ali Naghipour Alamdari

Street address

Dental Faculty, Qazvin University Of Medical Sciences, Bahonar Blvd.

City

Qazvin

Province

Qazvin

Postal code

3415759811

Phone

+98 28 3335 3061

Fax

+98 28 3335 3066

Email

a.naghipouralamdari@qums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Dr. Seyed Mahdi Mirhashemi

Street address

Shahid Beheshti Blvd.

City

Qazvin

Province

Qazvin

Postal code

1391134156

Phone

+98 28 3333 7006

Email

sm.mirhashemi@qums.ac.ir

Web page address

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Qazvin 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

Qazvin University of Medical Sciences

Full name of responsible person

Ali Naghipour Alamdari

Position

student

Latest degree

A Level or less

Other areas of specialty/work

Dentistry

Street address

Dental Faculty, Qazvin University Of Medical Sciences, Bahonar Blvd.

City

Qazvin

Province

Qazvin

Postal code

3415759811

Phone

+98 28 3335 3061

Fax

+98 28 3335 3066

Email

a.naghipouralamdari@qums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Qazvin University of Medical Sciences
Full name of responsible person
Ali Naghipour Alamdari
Position
Student
Latest degree
A Level or less
Other areas of specialty/work
Dentistry
Street address
Dental Faculty, Qazvin University Of Medical Sciences, Bahonar Blvd.
City
Qazvin
Province
Qazvin
Postal code
3415759811
Phone
+98 28 3335 3061
Fax
+98 28 3335 3066
Email
a.naghipouralamdari@qums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Qazvin University of Medical Sciences
Full name of responsible person
Ali Naghipour Alamdari
Position
Student
Latest degree
A Level or less
Other areas of specialty/work
Dentistry
Street address
Dental Faculty, Qazvin University Of Medical Sciences, Bahonar Blvd.
City

Qazvin
Province
Qazvin
Postal code
3415759811
Phone
+98 28 3335 3061
Fax
+98 28 3335 3066
Email
a.naghipouralamdari@qums.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Not applicable
Data Dictionary
Not applicable
Title and more details about the data/document
All data containing the GI and PI of all participants can be shared after Unrecognizable individuals
When the data will become available and for how long
Start access after publishing the article
To whom data/document is available
everybody
Under which criteria data/document could be used
Start other researches
From where data/document is obtainable
ali naghipour alamdari/alinaghipour@yahoo.com
What processes are involved for a request to access data/document
Send a request email
Comments