

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

comparison the effect of black tea and green tea on salivary PH after acidic changes between dentistry student of Islamic Azad university

Protocol summary

Study aim

comparison the effect of black tea and green tea on salivary PH after acidic changes

Design

trial with control group, single blinded

Settings and conduct

Participants in this study are 20 to 30 years old healthy dental students who will be thoroughly described prior to starting the study and written consent will be obtained. All samples collaborate with researchers in 3 separate sessions to conduct research. In this study, 10% sucrose solution was used to make acidic changes in the oral environment, and after pH was recorded the samples were asked to drink the beverage on the first day of a cup of black tea and on the second day of a cup of tea. Green and on the third day, drink a cup of boiling water and measure pH at digital time intervals (immediately, 5, 10, 15 minutes). Up to 15 minutes after the mouthwash of the sucrose solution, ie at the end of each test session, samples are required to rinse the fluoride-containing Oral B mouthwash as instructed by the pH drop. Also, in order to observe the research being uniform, all the measurements of saliva pH and reading of the numbers will be performed by the laboratory expert. In order to washout The interval between appointments is one week.

Participants/Inclusion and exclusion criteria

Participants of 20- to 30-year-old dental students who are systemically healthy and do not take saliva-effective medications and are not affected by dry mouth, periodontal disease, and active caries.

Intervention groups

All study subjects consumed black tea on the first day after acidic changes and consumed green tea on the second day after acidic changes and on the third day they consumed water after acidic changes

Main outcome variables

Compensation of Acidic Changes of Sucrose Mouthwash on Saliva by Black and Green Tea Drinks

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180519039722N2**

Registration date: **2020-02-11, 1398/11/22**

Registration timing: **registered_while_recruiting**

Last update: **2020-02-11, 1398/11/22**

Update count: **0**

Registration date

2020-02-11, 1398/11/22

Registrant information

Name

Saba Aghaei

Name of organization / entity

Country

Iran (Islamic Republic of)

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Email address

s_ghaei@dentaliau.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-02-11, 1398/11/22

Expected recruitment end date

2020-03-17, 1398/12/27

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

comparison the effect of black tea and green tea on salivary PH after acidic changes between dentistry student of Islamic Azad university

Public title

comparison the effect of black tea and green tea on salivary PH after acidic changes

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

dentistry student between 20 to 30 years

Exclusion criteria:

every one who has effective systemic disease every one who has xerostomia every one who has different diet every one who smoke every one who has periodontal disease every one who use affective drugs on saliva every one who use orthodontic appliance or removable denture every one who receive topical floride in last 2 weeks every one who use floride mouthwash in last 3 weeks

Age

From **20 years** old to **30 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Investigator

Sample size

Target sample size: **14**

Randomization (investigator's opinion)

N/A

Randomization description**Blinding (investigator's opinion)**

Single blinded

Blinding description

people who participate in study are completely aware about method and steps of study and The single blindness of the study is that the numbers are read and recorded by the laboratory expert.

Placebo

Not used

Assignment

Parallel

Other design features

The study was designed as a non-randomized study in which 14 study participants were tested each time as a different intervention group.

Secondary Ids

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Tehran Islamic Azad University of

Dental Branch of Medical Sciences

Street address

No. 4, Tenth Neyestan, Pasdaran Ave, Tehran

City

Tehran

Province

Tehran

Postal code

19585/175

Approval date

2019-05-11, 1398/02/21

Ethics committee reference number

IR.IAU.DENTAL.REC.1398.004

Health conditions studied**1****Description of health condition studied**

The effect of black and green tea drinks on the pH of saliva after acidic changes

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

The effect of black and green tea drinks on the pH of saliva after acidic changes

Timepoint

Measurement of pH before intervention, immediately after sucrose mouthwash, immediately after tea drink and at 5,10,15 min after drink

Method of measurement

Digital PH meter

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: After preparation of 10% sucrose mouthwash by applying 20 g of sucrose powder to 200 ml of boiling kettle water to 10% concentration. Samples were then taken to 20 ml of mouthwash for one minute and the pH of the saliva was measured. Then rinse the Golestan black sachet with the factory order (put one sachet in a cup and add boiling water and wait 3 to 5 minutes) and drink for 1 minute after cooling. And then, at intervals (immediately, 5, 10 and 15 minutes), the pH of the saliva was measured by the researcher using a digital PH meter.

Category

Prevention

2

Description

Intervention group: After preparation of 10% sucrose mouthwash by applying 20 g of sucrose powder to 200 ml of boiling kettle water to 10% concentration. Samples were then taken to 20 ml of mouthwash for one minute and the pH of the saliva was measured. Then rinse the Golestan green sachet with the factory order (put one sachet in a cup and add boiling water and wait 3 to 5 minutes) and drink for 1 minute after cooling. And then, at intervals (immediately, 5, 10 and 15 minutes), the pH of the saliva was measured by the researcher using a digital PH meter.

Category

Prevention

3

Description

Control group: Control group: After preparation of 10% sucrose mouthwash by applying 20 g of sucrose powder to 200 ml of boiling kettle water to 10% concentration. Samples were then taken to 20 ml of mouthwash for one minute and the pH of the saliva was measured. then the sample drinks boiled kettle water for one minute, and then at intervals (5, 10, and 15 minutes intervals) the pH of the saliva by the researcher is measured by the digital PH meter.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Pediatrics section of Dental Branch of Tehran Islamic Azad University

Full name of responsible person

Tayebeh Sadat Seyedzadeh

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No. 4, Tenth Neyestan, Pasdaran Ave, Tehran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

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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

Islamic Azad University

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

Islamic Azad University

Full name of responsible person

Saba Aghaei

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Dentistry

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Person responsible for scientific inquiries

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Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

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Person responsible for updating data

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Medical doctor

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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

Not applicable

Data Dictionary

Not applicable