

Clinical Trial Protocol

Iranian Registry of Clinical Trials

22 Jul 2026

Preparation of mouthwash and toothpaste containing the extracts of *Artemisia dracunculus*, *Satureja khuzestanica* and *Myrtus communis* and evaluation of those antimicrobial effects against oral pathogenic microorganisms (Streptococcus sanguinis, Streptococcus mutans and Candida albicans)

Protocol summary

Summary

The aim of this study is to evaluation of in vitro and in vivo antimicrobial effects of herbal mouthwash to form effervescent tablet and herbal toothpaste containing the extracts of *Artemisia dracunculus*, *Satureja khuzestanica* and *Myrtus communis* against oral pathogenic microorganisms (*Streptococcus sanguinis*, *Streptococcus salivarius*, *Streptococcus mutans* and *Candida albicans*). This study is clinical trial without control (Before & After) that will be perform on 40 girl students volunteers aging 20-25 years, healthy with normal gums without bleeding or inflammation. Exclusion criteria: periodontal diseases; usage of antibiotic; antifungal and corticosteroid drugs in the recent three months. Twenty volunteers will be given herbal toothpaste and asking from them at 12 o'clock midnight to wash their mouths by 10-15ml deionized water for one minute, pour the contents of their mouth into sterile container as samples of before test. Then will be asked them to use brushing their teeth with herbal toothpaste. Six hours after applying herbal toothpaste, the next morning again will be asked from same volunteers to wash their mouths by 10-15 ml deionized water for one minute and pour the contents of their mouth into another sterile container as sample of after test. Then the samples transfer to laboratory immediately. Aliquots of 100µl of each sample inoculate on petri dishes containing blood agar for bacteria and Sabouraud dextrose agar medium for *Candida albicans*. Plates were incubated inside of an anaerobic jar with 5-7 CO₂ concentration at 35-37°C for 24 hours (Bacteria) and 48 hours (fungi). Then colonies will be count before and after test, separately. This process will be repeat for the herbal effervescent granule mouthwash by other 20 volunteers with same condition.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015112825240N2**

Registration date: **2016-01-22, 1394/11/02**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-01-22, 1394/11/02

Registrant information

Name

Batool Sadeghi Nejad

Name of organization / entity

Abadan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 61 5326 5361

Email address

sadeghi-b@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Abadan. University of Medical Sciences Vice chancellor for research: Dr. Mohammad Mahboby

Expected recruitment start date

2015-12-01, 1394/09/10

Expected recruitment end date

2016-01-30, 1394/11/10

Actual recruitment start date

empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Preparation of mouthwash and toothpaste containing the extracts of Artemisia dracunculus, Satureja khuzestanica and Myrtus communis and evaluation of those antimicrobial effects against oral pathogenic microorganisms)Streptococcus sanguinis , Streptococcus mutans and Candida albicans)

Public title
Herbal mouthwash and toothpaste

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion: Normal gums without bleeding or inflammation. Exclusion: Periodontal diseases; usage of antibiotic; Antifungal; Corticosteroid drugs

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: 40

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Abadan University of Medical Sciences

Street address

Opposite of Abadan International airport, Abadan

City

Abadan

Postal code

6313833177

Approval date

2015-10-26, 1394/08/04

Ethics committee reference number

IRABADANums.REC.1394.34

Health conditions studied

1

Description of health condition studied

The Evaluation of herbal mouthwash and toothpaste on Volunteers

ICD-10 code

B37,B95

ICD-10 code description

B37 Candidial Stomatitis, B95 Bacterial,Viral and other infection agents

Primary outcomes

1

Description

Herbal mouthwash and toothpaste; oral pathogenic Microorganisms

Timepoint

For 6 months

Method of measurement

Evaluation of Herbal mouthwash and toothpaste before and after usage

Secondary outcomes

1

Description

Colony count of oral pathogenic before and after using Herbal mouthwash and toothpaste.

Timepoint

Three months

Method of measurement

The colony count before and after usage

Intervention groups

1

Description

Intervention : first of all, using herbal toothpaste and then using herbal mouthwash in study period.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Abadan University of Medical Sciences

Full name of responsible person

Batool Sadeghi-Nejad- Assistant professor- Doctoral of

Specialist Medical Mycology

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Web page address

www.abadanums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Abadan University of Medical Sciences

Full name of responsible person

Batool Sadeghi-Nejad

Position

Academic membrane; Assistant professor; Doctoral of Specialist Medical Mycology

Other areas of specialty/work

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Abadanr University of Medical Sciences

Full name of responsible person

Vice chancellor for research, Dr. Mohammad Mahboby

Street address

Abadan, Opposite International Abadan airport

City

Abadan

Grant name

93u

Grant code / Reference number

020

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

Yes

Title of funding source

Abadanr University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Abadan University of Medical Sciences

Full name of responsible person

Batool Sadeghi-Nejad

Position

Academic membrane; Assistant professor; Doctoral of Specialist Medical Mycology

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report

empty
Analytic Code
empty
Data Dictionary
empty