Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Evaluation of efficacy of topical subgingival application of gel prepared from plants of Quercus Brantii L and Coriandrum Sativum L compared with placebo gel on periodontal clinical indices in moderate chronic periodontitis patients.

Protocol summary

Summary

Aim: Determination of efficacy of topical subgingival application of gel prepared from plants of Quercus Brantii L and Coriandrum Sativum L on periodontal clinical indices in moderate chronic periodontitis patients. Inclusion criteria: any systemic disease, any antibiotic therapy in last 1 month, no history of any periodontal therapy 3 months prior to the initial examination and any orthodontic therapy. Exclusion criteria: smoking habit, pregnancy, sites with severe caries and restoration, allergy to gel and other drugs used in the study. Ten patients with chronic moderate periodontitis (with 4 or more sites with a probing depth of 3-5 mm) were selected from the Department of Periodontics of Isfahan dental school. It was a single blind study. Examiner was unaware of treatment prescribed for each site. Totally seventy sites (pockets) were selected and divided into experimental and control sites randomly. Experimental sites were treated with scaling and root planning (SRP) adjunctive topical subgingival application of herbal gel and control sites were treated with SRP and topical subgingival application of placebo gel into periodontal pockets. Clinical indices: Plaque index (PI), Probing pocket depth (PPD), clinical attachment loss (CAL) and Papilla Bleeding Index (PBI) were measured before and also one and three months after treatment. Then results were analyzed with the descriptive statistics, repeated measures ANOVA, Mann_whitney and McNemar tests.

General information

Acronym

there is no acronym

IRCT registration information

IRCT registration number: **IRCT201111014877N7**

Registration date: **2012-08-22, 1391/06/01**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-08-22, 1391/06/01

Registrant information

Name

Jaber Yaghini

Name of organization / entity

Isfahan University of Medical Sciences and Health Services

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research Dental Faculty of Isfahan University of Medical Sciences

Expected recruitment start date

2012-02-20, 1390/12/01

Expected recruitment end date

2012-04-08, 1391/01/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of efficacy of topical subgingival application of gel prepared from plants of Quercus Brantii L and Coriandrum Sativum L compared with placebo gel on periodontal clinical indices in moderate chronic periodontitis patients.

Public title
Evaluation of efficacy of gel prepared from plants of Quercus Brantii L and Coriandrum Sativum L on periodontal clinical indices.
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: any systemic disease, any antibiotic therapy in last 1 month, no history of any periodontal therapy 3 months prior to the initial examination and any orthodontic therapy. Exclusion criteria: smoking habit, pregnancy, sites with severe caries and restoration, allergy to gel and other drugs used in the study.
Age
From **20 years** old to **55 years** old
Gender
Both

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **35**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Single blinded
Blinding description
Placebo
Used
Assignment
Parallel
Other design features
Single blind study means that the examiner who had the task of gathering information, was unaware of treatment of prescribed for each site.

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Isfahan University of Medical Sciences
Street address
Ethics Committee of Isfahan University of Medical Sciences, Hezar Jerib Avenue, Isfahan
City
Isfahan
Postal code
7346181746
Approval date
2012-01-16, 1390/10/26
Ethics committee reference number
390554

Health conditions studied

1

Description of health condition studied
chronic periodontitis
ICD-10 code
K05.3
ICD-10 code description
Chronic pericoronitis
Periodontitis:•NOS•complex•simplex

Primary outcomes

1

Description
Pocket depth
Timepoint
Before treatment, 1 and 3 months after treatment
Method of measurement
With probe

2

Description
Clinical attachment loss
Timepoint
Before treatment, 1 and 3 months after treatment
Method of measurement
With probe

3

Description
Papilla bleeding index
Timepoint
Before treatment, 1 and 3 months after treatment
Method of measurement
With probe

4

Description
Plaque index
Timepoint
Before treatment, 1 and 3 months after treatment
Method of measurement
With probe

Secondary outcomes

1

Description
tooth sensitivity

Timepoint
Before treatment, 1 and 3 months after treatment
Method of measurement
Visual examination

Intervention groups

1

Description
Ten patients were selected with moderate chronic periodontitis (with 4 or more sites with a probing depth of 3-5 mm). Totally seventy sites (pockets) were selected and divided into experimental and control sites randomly. Clinical indices: Plaque index (PI), Probing pocket depth (PPD), clinical attachment loss (CAL) and Papilla Bleeding Index (PBI) were measured before treatment. Experimental sites were treated with scaling and root planning (SRP) adjunctive topical subgingival application of gel was prepared from plants extract of Quercus Brantii L (20%) and Coriandrum Sativum L (1%) in pharmacy Faculty of Isfahan University of Medical Sciences. Gel was supplied in syringe (0.2 ml) with 21 gauge needle into the pocket. This was done two times. Also clinical indices were measured one and three months after treatment.
Category
Treatment - Drugs

2

Description
Control sites were treated with SRP and topical application of placebo gel into periodontal pockets. It was applied subgingivally using similar syringe and needle as that of experimental gel.
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Dental Faculty of Isfahan Medical University
Full name of responsible person
Dr Jaber Yaghini
Street address
Dr Jaber Yaghini, Periodontology department, Dental Faculty of Isfahan Medical University, Hezar Jerib Avenue
City
Isfahan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Dental Faculty of Isfahan University of Medical Sciences
Full name of responsible person
Dr Savabi
Street address
Vice chancellor for research, Dental faculty Isfahan Medical University, Hezar Jerib Avenu, Isfahan
City
Isfahan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research, Dental Faculty of Isfahan 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
Dental Faculty of Isfahan Medical University
Full name of responsible person
Dr Jaber Yaghini
Position
Assistant Professor of Periodontology of Dental Faculty of Isfahan Medical University
Other areas of specialty/work
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Person responsible for updating data

Contact

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