

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of non-surgical periodontal therapy with adjunctive topical doxycycline gel on HbA1c in patients with type 2 diabetes mellitus(DM).

Protocol summary

Summary

"Aim":The purpose of this study is to investigate the effect of non surgical periodontal therapy plus subgingivally doxycycline gel 3% on glycemic control in type 2 diabetes mellitus (type 2 DM) patients who have periodontitis. "Materials and methods":A total of 24 type 2 DM patients with periodontitis will be selected for the study, and randomly divided into two equal groups, Plaque index (PI), bleeding on probing (BOP), probing depth (PD) and clinical attachment levels (CAL) were recorded. "Group 1": (12 patients) was treated with oral hygiene instruction, scaling and root planing, and doxycycline gel for 15 days; " and Group 2": (12 patients) has the same treatment but with placebo gel, After 12 weeks their periodontal condition and Fasting blood sugar (FBS), glycated hemoglobin (HbA1c) level, will be reevaluated.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015010517587N8**

Registration date: **2015-02-10, 1393/11/21**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-02-10, 1393/11/21

Registrant information

Name

Amirhossein Farahmand

Name of organization / entity

Dental Branch Islamic Azad University of Tehran

Country

Iran (Islamic Republic of)

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+98 21 2284 9604

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Recruitment status

Recruitment complete

Funding source

investigator

Expected recruitment start date

2015-01-10, 1393/10/20

Expected recruitment end date

2016-02-18, 1394/11/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of non-surgical periodontal therapy with adjunctive topical doxycycline gel on HbA1c in patients with type 2 diabetes mellitus(DM).

Public title

A randomized , placebo controlled trial The effect of non-surgical periodontal therapy with adjunctive topical doxycycline gel on HbA1c in patients with type 2 diabetes mellitus (DM).

Purpose

Treatment

Inclusion/Exclusion criteria

"Inclusion criteria": patients with diabetes mellitus type II (at least 3 months before diagnosis, and A fasting blood sugar level of more than 125 mg/dl) and has periodontal disease is a chronic moderate (has a clinical attachment level of 3-4 mm) peritonitis, minimum of 16 natural teeth, and no periodontal treatment in the prior 6 months, had an glycated α hemoglobin (HbA1c) value between 7- 9 percent at screening, had reported no

changes in diabetes medications within the last 3 months, were in the care of a physician for their diabetes. "Exclusion criteria": pregnancy or lactation, history of allergy to drugs used in the study; smoking; diabetes related emergency within 30 days ago; use of nonsteroidal anti-inflammatory drugs; or taking low dose daily aspirin (75-325 mg); use of immunosuppressive medications; antibiotic use; dialysis; risk of bleeding complications; the type of disease periodontal (Aggressive); a history of periodontal treatment in the previous 6 months; orthodontic treatment; using the removal prostheses; extensive dental caries; dental abscesses or infections.

Age

From **10 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **24**

Randomization (investigator's opinion)

Randomized

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

Double blinded

Blinding description**Placebo**

Used

Assignment

Parallel

Other design features

In this study, the patients were randomly (Balanced Block Randomization) equal divided into two groups.

Secondary Ids

empty

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

Ethics Committee of Dental Branch, Islamic Azad University of Tehran

Street address

No 4, 10th Neyestan, Pasdaran Ave, Tehran, Iran

City

Tehran

Postal code

19585/175

Approval date

2014-10-28, 1393/08/06

Ethics committee reference number

560

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

periodontitis

ICD-10 code

K05.3

ICD-10 code description

Periodontitis

Primary outcomes**1****Description**

Periodontal pocket

Timepoint

15 days

Method of measurement

Periodontal probe

Secondary outcomes**1****Description**

glycated hemoglobin (HbA1c)

Timepoint

3 months

Method of measurement

Blood test

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

"Intervention group": Doxycycline(3 percent) gel was manufactured by shahin khapour harmaceutical Laboratory,Tehran- Iran .

Category

Treatment - Drugs

2**Description**

"Control group":Placebo gel of was prepared in the same manner but without the active drug in it (Made by the shahin khapour of Pharmaceutical Laboratory,Tehran- Iran .

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Dental Branch Islamic Azad University of Tehran

Full name of responsible person

Amirhossein Farahmand

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No 4, 10th Neyestan, Pasdaran Ave, Tehran, Iran

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Deputy of Research Council of Dental Branch Islamic Azad University of Tehran

Full name of responsible person

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Street address

No 4, 10th Neyestan Alley, Pasdaran Ave, Tehran, Iran

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Deputy of Research Council of Dental Branch Islamic Azad University of Tehran

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 Branch Islamic Azad University of Tehran

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Position

Periodontologist, Implantologist

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Web page address**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