Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

+The effect of Vicryl plus suture material on the accumulation of streptococcus mutans and staphylococcus aureus microorganisms on adjacent silk sutures

Protocol summary

Study aim
comparison of the effect of Vicryl plus suture material on the accumulation of streptococcus mutans and staphylococcus aureus microorganisms on adjacent silk sutures with different distances

Design
clinical trial with control group; four parallel group in 20 patients; double blind; Non randomized

Settings and conduct
surgical area is randomly divided into four sites, which one vicryl plus suture and three silk sutures at dictance of three, six and nine millimeters of vicryl plus will be placed in it. One week after the surgery, the sutures will be separated and placed in a BHI transfer suspension and transmitted to the microbiological laboratory within twelve hours.Then microorganisms will be cultivate to the specific culture medium of each bacteria from the fluid transfer medium. After culture on the media and placing the culture plate in an incubator at 37 ° C for twenty-four hours, the growth of the bacteria will be checked and the number of colonies (CFU units) will be counted

Participants/Inclusion and exclusion criteria
patients who indicated implant surgery of two adjacent implants, constitute the statistical population of the study. patients with periodontal disease, systemic diseases, or taking other medicines will be excluded from the study

Intervention groups
First intervention group: Use silk suture at a distance of nine millimeters of vicryl plus suture Second intervention group: Use silk suture at a distance of six millimeters of vicryl plus suture Third intervention group: Use silk suture at a distance of three millimeters of vicryl plus suture Control group: use of Vicryl plus suture that is multi-strand and contains Triclosan as an antimicrobial material

Main outcome variables
accumulation of bacteria on surgucal sutures

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20180617040117N2**
Registration date: **2019-03-10, 1397/12/19**
Registration timing: **registered_while_recruiting**

Last update: **2019-03-10, 1397/12/19**
Update count: **0**

Registration date
2019-03-10, 1397/12/19

Registrant information
Name
Ardavan Etemadi
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 21 2256 4571
Email address
a-etemadi@farabi.tums.ac.ir

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2019-02-12, 1397/11/23
Expected recruitment end date
2019-03-14, 1397/12/23
Actual recruitment start date
empty
Actual recruitment end date

empty

Trial completion date

empty

Scientific title

+The effect of Vicryl plus suture material on the accumulation of streptococcus mutans and staphylococcus aureus microorganisms on adjacent silk sutures

Public title

Accumulation of oral microorganisms around the suture materials in implant surgery

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

All patients who have indication for implant surgury in at least two adjacent implant sites

Exclusion criteria:

to have periodontal diseases to have systemic diseases to take other medicines

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor

Sample size

Target sample size: **20**

More than 1 sample in each individual

Number of samples in each individual: **4**

every patient has four suture materials in his mouth as sample

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

After implantation, the surgeon uses four sutures with similar sequences in all patients and one week after surgery, sutures will be delivered to the microbiologist as numerical codes so microbiologist an patient don’t know the type of sutures

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of faculty of Dentistry of Islamic Azad University

Street address

Pasdaran Ave, 10th Neyestan , no 4

City

Tehran

Province

Tehran

Postal code

1946853314

Approval date

2018-05-27, 1397/03/06

Ethics committee reference number

IR.IAU.DENTAL.REC.1397.008

Health conditions studied

1

Description of health condition studied

surgical site infection around surgical suture materials

ICD-10 code

A48.8

ICD-10 code description

Other specified bacterial diseases

Primary outcomes

1

Description

accumulation of bacteria on surgical sutures

Timepoint

counting colony forming units after bacterial culture on culture medium

Method of measurement

counts of colonies with naked eye

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Use silk suture at a distance of nine millimeters of vicryl plus suture

Category

Prevention

2

Description

Intervention group: Use silk suture at a distance of six millimeters of vicryl plus suture

Category

Prevention

3

Description
Intervention group: Use silk suture at a distance of three millimeters of vicryl plus suture
Category
Prevention

4

Description
Control group: use of Vicryl plus suture that is multi-strand and contains Triclosan as an antimicrobial material
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
private office of Dr.ardavan Etemadi
Full name of responsible person
Ardavan Etemadi
Street address
No.12 , Narenjestan7 Ave, Farmaniye Town
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1957944931
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a-etemadi@farabi.tums.as.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University
Full name of responsible person
Nima nadafpoor
Street address
No. 4, Neyestan 10, Pasdaran Ave
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Postal code
19585175
Phone
+98 21 2256 4570
Email
n_nadaf@dentaliau.ac.ir

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
Ardavan Etemadi
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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Person responsible for updating data

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Full name of responsible person

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Latest degree

Specialist

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no more information with respect to the subject

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available