

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

Comparison of bacterial colonization in the quality of healing following the use of nylon and vicryl suturies in oral surgeries

Protocol summary

Study aim

Comparison of bacterial colonization in the quality of wound healing following the use of nylon and vicryl sutures in third molar surgeries.

Design

At least 29 people who will use one type of suture on each side of the jaw. Two types of suture will be used in each person and the results of these two sides will be compared. The RAND function of Excel software will be used for randomization.

Settings and conduct

After wisdom tooth surgery, a type of suture is used on each side of the jaw. This study is single blind, because the patient does not know which suture will be inserted on which side of his jaw. 7 days later, the suture will be pulled. Then a part of the suture will be removed. It will be sent to the departments of microbiology and pathology of the university to check the microbial culture and the presence of bacterial colonies and the degree of inflammation around the threads.

Participants/Inclusion and exclusion criteria

The conditions for the study will be: good general health status, without specific systemic diseases or oral diseases and non-smoker. Exclusion criteria: age older than 35 years old; people with a history of systemic disease and poor health; smoking and alcohol consumption.

Intervention groups

The use of vicryl and nylon sutures in mandibular wisdom teeth surgery in each person. We will not have an intervention or control group. The same treatment method will be applied to all people.

Main outcome variables

The degree of colonization of bacteria - the color of the oral mucosa - the color and consistency of the repair tissue - the amount of pus discharge - the amount of bleeding - the inflammatory reaction of the tissue sample - the presence of bacterial colonies in the tissue sample

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220705055371N1**

Registration date: **2022-08-19, 1401/05/28**

Registration timing: **prospective**

Last update: **2022-08-19, 1401/05/28**

Update count: **0**

Registration date

2022-08-19, 1401/05/28

Registrant information

Name

masome kordinia

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 11 3223 5193

Email address

m.kordinia@mubabol.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-09-11, 1401/06/20

Expected recruitment end date

2023-05-10, 1402/02/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of bacterial colonization in the quality of healing following the use of nylon and vicryl sutures in oral surgeries

Public title

Investigating the effect of nylon and vicryl suture on the quality of wound healing

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Good general health status No specific systemic diseases or oral diseases Non-smoker

Exclusion criteria:

Age older than 35 years old Poor health Alcohol consumption

Age

To 35 years old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: 29

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization is done in a simple way and by using the option of generating random numbers on the Kitset.ir site and electronically. unit, candidates for bilateral wisdom tooth surgery. Based on the calculated sample size, random numbers are generated without repetition. Then, according to the generated numbers, a nylon suture thread is placed in the right side of the patient's jaw and in The left side of Vicryl suture thread is used and vice versa for the next number.

Blinding (investigator's opinion)

Single blinded

Blinding description

The surgeon will know the suture used, but the patient does not know that a different suture will be used for him and what type of suture will be used on each side.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Babol University of Medical

Sciences

Street address

Ganj Afrooz St., Babol University of Medical Sciences

City

Babol

Province

Mazandaran

Postal code

4717647745

Approval date

2022-07-04, 1401/04/13

Ethics committee reference number

IR.MUBABOL.REC.1401.052

Health conditions studied

1

Description of health condition studied

Comparison of the colonization of Staphylococcus aureus at the site of nylon and vicryl sutures in third molar surgeries.

ICD-10 code

B95.6

ICD-10 code description

Staphylococcus aureus as the cause of diseases classified elsewhere

2

Description of health condition studied

Comparison of colonization of enterococcus bacteria at the site of nylon and vicryl sutures in third molar surgeries.

ICD-10 code

B95.2

ICD-10 code description

Enterococcus as the cause of diseases classified elsewhere

3

Description of health condition studied

Comparison of colonization of Escherichia coli [E. coli] bacteria at the site of nylon and vicryl sutures in third molar surgeries.

ICD-10 code

B96.2

ICD-10 code description

Escherichia coli [E. coli] as the cause of diseases classified elsewhere

4

Description of health condition studied

Comparison of the colonization of Streptococcus mutans at the site of nylon and vicryl sutures in third molar surgeries.

ICD-10 code

B95.4

ICD-10 code description

Other streptococcus as the cause of diseases classified elsewhere

5

Description of health condition studied

Comparison of the colonization of Other and unspecified infectious diseases grown at the site of nylon and vicryl sutures in third molar surgeries.

ICD-10 code

B99

ICD-10 code description

Other and unspecified infectious diseases

Primary outcomes

1

Description

Bacterial colonization rate

Timepoint

At the beginning of the study

Method of measurement

Based on preparation of warm slides and biochemical tests and according to diagnostic tables

2

Description

The color of the oral mucosa

Timepoint

7 days after tooth extraction

Method of measurement

Using the Hilling index modified from the article of Masse et al

3

Description

The color and consistency of the restorative tissue

Timepoint

7 days after tooth extraction

Method of measurement

Using the Hilling index modified from the article of Masse et al

4

Description

The rate of pus discharge

Timepoint

7 days after tooth extraction

Method of measurement

Using the Hilling index modified from the article of Masse et al

5

Description

Bleeding rate

Timepoint

7 days after tooth extraction

Method of measurement

Using the Hilling index modified from the article of Masse et al

6

Description

Inflammatory reaction of tissue sample

Timepoint

7 days after tooth extraction

Method of measurement

Observing the number of inflammatory cells under a microscope with a magnification of *400

7

Description

Presence of bacterial colony in tissue sample

Timepoint

7 days after tooth extraction

Method of measurement

The presence or absence of bacterial colonies under the microscope

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Surgical site sutured with Vicryl suture

Category

Treatment - Surgery

2

Description

Intervention group2: Surgical site with nylon suture

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Dentistry, Babol University of Medical Sciences

Full name of responsible person

Dr Arezo Javani

Street address

Ganj Afrooz St., Babol University of Medical Sciences

City

Babol

Province

Mazandaran

Postal code

4717647754

Phone

+98 911 316 1339

Fax

+98 11 3219 0181

Email
m.kordinia@mubabol.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Babol University of Medical Sciences
Full name of responsible person
Dr mehdi rajabnia
Street address
Ganj Afrooz St., Babol University of Medical Sciences
City
Babol
Province
Mazandaran
Postal code
4717647754
Phone
+98 911 316 1339
Fax
+98 11 3219 7667
Email
m.kordinia@mubabol.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Babol University of Medical Sciences

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
Babol University of Medical Sciences
Full name of responsible person
Arezo Javani
Position
Assistant Professor
Latest degree
Specialist
Other areas of specialty/work
Dentistry
Street address
Babol University of Medical Sciences, Ganj Afrooz St.
City
Babol

Province
Mazandaran
Postal code
4717647754
Phone
+98 11 3223 5193
Fax
Email
m.kordinia@mubabol.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Babol University of Medical Sciences
Full name of responsible person
Arezo Javani
Position
Associate professor
Latest degree
Specialist
Other areas of specialty/work
Dentistry
Street address
Babol University of Medical Sciences, Ganj Afrooz St.
City
Babol
Province
Mazandaran
Postal code
4717647754
Phone
+98 11 3223 5193
Fax
Email
m.kordinia@mubabol.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Babol University of Medical Sciences
Full name of responsible person
Arezo Javani
Position
Associate professor
Latest degree
Specialist
Other areas of specialty/work
Dentistry
Street address
Babol University of Medical Sciences, Ganj Afrooz St.
City
Babol
Province
Mazandaran
Postal code
4717647754
Phone
+98 11 3223 5193
Fax

Email

m.kordinia@mubabol.ac.ir

Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All data is potentially shareable after de-identifying individuals

When the data will become available and for how**long**

Access starts 6 months after the results are published

To whom data/document is available

The data will be accessible to researchers working in academic and scientific institutions and people who are also engaged in industry.

Under which criteria data/document could be used

These data can be used with the intention of using them in medical work and after obtaining permission from the ethics committee and following legal procedures from the university and obtaining permission from the project manager and the research department of Babol Dental School.

From where data/document is obtainable

To receive the desired documents, please send a message to the email below.

khashayarirload@yahoo.com

What processes are involved for a request to access data/document

After receiving the email and obtaining permission from the ethics committee and the research department of Babol University of Medical Sciences, documents or data files will be sent to the applicant.

Comments