Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Comparison between subcuticular and vertical mattress suture wound repair on wound infection after appendectomy

Protocol summary

Study aim
Comparison of infection in two methods of subcutaneous incision skin suturing and vertical matrix in appendectomy

Design
Clinical trial with control group, with parallel groups, randomized, phase 2 on 92 patients. Excel software rand function was used for randomization.

Settings and conduct
After coordination with hospitals and relevant authorities, patients who are candidates for appendectomy surgery in hospitals in Qazvin are identified and after examination, if they have the necessary conditions, they will enter the study.

Participants/Inclusion and exclusion criteria
Candidates for appendectomy surgery are identified in Qazvin hospitals and are included in the study. Prerequisites for participating in the study are:acute appendicitis,age less than 40,BMI 18-25,Do not suffer from infectious diseases and weaken the immune system, including: DM, uremia, jaundice, cancer,malnutrition . Also, patients who undergo appendectomy during another surgery, if necessary or if necessary, will be excluded from the study.

Intervention groups
The patients will be randomly divided into two groups according to the type of skin suture 1. In subcuticular suturing, also known as plastic and subcutaneous suturing, the two edges are continuously brought together from under the skin. 2. In vertical mattress suture, also known as far & near and donut suture (in honor of the Italian surgeon; Mario Donati), in this method of non-absorbable suture (nylon) and far-near and far Used close

Main outcome variables
The site of the wound will be examined daily in the first week after surgery and weekly in the second to fourth weeks. In the examination of the wound, any discharge and inflammation of the wound and the size and shape of the scar, the duration of complete wound healing and the results will be recorded in a special form. Wound discharge will also be checked for the possibility of infection.

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20210714051882N1**
Registration date: **2021-08-06, 1400/05/15**
Registration timing: **registered_while_recruiting**

Last update: **2021-08-06, 1400/05/15**
Update count: **0**

Registration date
2021-08-06, 1400/05/15

Registrant information
Name
mohammadali jahanbakhsh
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 28 3379 0612
Email address
jahan_301064@yahoo.com

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2021-07-11, 1400/04/20
Expected recruitment end date
2022-07-11, 1401/04/20
Actual recruitment start date
empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison between subcuticular and vertical mattress suture wound repair on wound infection after appendectomy

Public title
Comparison between subcuticular and vertical mattress suture wound repair on wound infection after appendectomy
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
appendecitis age less than 40 BMI(18-25)
Exclusion criteria:
infectious diseases and weakening of the immune system Having another operation at the same time as the appendectomy
Age
From **18 years** old to **40 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **92**
Randomization (investigator's opinion)
Randomized
Randomization description
Patients are assigned to two treatment groups A and B using the method of balance blocks (Balance block randomization), the size of the block is 10 and the number of blocks is 10. Balanced randomization allocation method for participants in the study of randomized clinical trial is the effect of suturing by vertical matrix method (group A) and suturing by subcutaneous method (group B) in reducing postoperative infection. Random allocation software is a randomization tool.
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Qazvin University of Medical Sciences
Street address
Minoodar town, Elahieh alley, 22 Bahman boulevard, Velayat hospital
City
Qazvin
Province
Qazvin
Postal code
4193711791
Approval date
2021-01-19, 1399/10/30
Ethics committee reference number
IR.QUMS.REC.1399.397

Health conditions studied

1

Description of health condition studied
Appendicitis
ICD-10 code
K35
ICD-10 code description
Acute appendicitis

Primary outcomes

1

Description
Wound infection
Timepoint
The first week and the first month after surgery
Method of measurement
Examination of the surgical site

Secondary outcomes

1

Description
Scar size and shape
Timepoint
The first week and the first month after surgery
Method of measurement
Examination of the surgical site

Intervention groups

1

Description
Intervention group: Perform appendectomy sutures by vertical mattress method.In this method, non-absorbable suture thread (nylon) and far-far and near-near system are used, so that first the needle enters from a distance

(about 8 to 4 mm) from the edge of the wound and from the edge of the next round It is taken out and then it is inserted from a close distance (1 to 2 mm) from the edge of the wound and it is taken out from a distance close to the opposite side of the wound and it is patched.

Category

Treatment - Surgery

2

Description

Control group: Perform appendectomy sutures by subcuticular method.In subcuticular suturing, also known as plastic and subcutaneous suturing, the two edges are continuously brought under the skin and can cause the least scarring.

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Qazvin Velayat Hospital

Full name of responsible person

Mohammad Ali Jahanbakhsh

Street address

Minoodar, Elahieh alley, 22 Bahman Boulevard, Velayat Hospital

City

Qazvin

Province

Qazvin

Postal code

4193713191

Phone

+98 28 3379 0620

Email

ma.rajabi@qums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Research Deputy of Qazvin Hospital-Dr Sepideh Hajian

Street address

Minoodar, Elahieh alley, 22 Bahman Boulevard, Velayat Hospital

City

Qazvin

Province

Qazvin

Postal code

4193713191

Phone

+98 28 3379 0627

Email

ma.rajabi@qums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Qazvin 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

Qazvin University of Medical Sciences

Full name of responsible person

Mohammadali Jahanbakhsh

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

General Surgery

Street address

Qazvin Minood on 22 Bahman Boulevard, Velayat Hospital

City

Qazvin

Province

Qazvin

Postal code

4193713191

Phone

+98 28 3379 0612

Fax

Email

jahan_301064@yahoo.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Mohammadali Jahanbakhsh

Position

Resident

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+98 28 3379 0612
Fax
Email
jahan_301064@yahoo.com

Person responsible for updating data

Contact
Name of organization / entity
Qazvin University of Medical Sciences
Full name of responsible person
Mohammadali Jahanbakhsh
Position
Resident
Latest degree
Medical doctor
Other areas of specialty/work
General Surgery
Street address
Qazvin Minood on 22 Bahman Boulevard, Velayat Hospital
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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 unidentified individuals
When the data will become available and for how long
Access period starts 6 months after the results are published
To whom data/document is available
Available to the public
Under which criteria data/document could be used
Available to the public
From where data/document is obtainable
mohammad ali jahanbakhsh jahan_301064@yahoo.com
What processes are involved for a request to access data/document
One month period
Comments