

Clinical Trial Protocol

Iranian Registry of Clinical Trials

23 Jun 2026

Effect of thyme essential oil on control of pilonidal sinus ulcer infection after surgery

Protocol summary

Study aim

Effect of thyme essential oil on control of pilonidal sinus ulcer infection after surgery

Design

This study is a research project in which a medicinal herb "Thyme" available in the herbal remedies will be used to complete the treatment of patients with pilonidal sinus ulcer after surgery. Patients will then be placed on the wound, in addition to practicing the instructions of the physician and taking the prescribed medications, the soluble thyme essential oil will be placed. The use of herbal medicines and essential oils has long been traditionally used and the benefits of it are now of great interest to researchers. Previously, by the same group of researchers, the same thing has been done on a laboratory mouse and there are significant therapeutic effects observed.

Settings and conduct

Clinic and Surgery Department of Vali-e-Asr Hospital and Amiral-Momenin Hospital

Participants/Inclusion and exclusion criteria

age 14-60 years, patients of both sexes, referrals, preferably within the first 24 hours after surgery, and completion of informed consent form
Exit criteria: underlying diseases, burns, open and associated bleeding ulcers

Intervention groups

The study was not blinded and patients were randomly divided into three groups of 30. A common treatment group includes: normal saline washing and sterile gauze dressing, and the second group, in addition to the usual treatment of silver sulfadiazine ointment, and the third group, in addition to the usual treatment, receive herbal treatment.

Main outcome variables

Evaluation and comparing the size of the wound between three groups

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161017030336N4**

Registration date: **2018-12-10, 1397/09/19**

Registration timing: **registered_while_recruiting**

Last update: **2021-05-04, 1400/02/14**

Update count: **2**

Registration date

2018-12-10, 1397/09/19

Registrant information

Name

Ghasem Habibi

Name of organization / entity

Islamic azad university

Country

Iran (Islamic Republic of)

Phone

+98 86 3367 3208

Email address

dr.habibi@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-08-24, 1397/06/02

Expected recruitment end date

2019-08-24, 1398/06/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of thyme essential oil on control of pilonidal sinus ulcer infection after surgery

Public title

Effect of thyme essential oil on control of pilonidal sinus ulcer infection after surgery

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

The patient has a stitched sore Hospitalized or non-hospitalized Age between 14 and 60 years Patients of both sexes Referral preferably in the first 24 hours after surgery Completion of informed consent form

Exclusion criteria:

Underlying diseases (diabetes, hypoxic and ...) Burns Open wounds bleeding

Age

From **14 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **90**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization, so that the patients included in the study are all divided into two equal groups. One of the groups is considered as the treatment group and the other group is considered.

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 Arak University of Medical Sciences

Street address

Basidj Bridge, Sadasht.

City

Arak

Province

Markazi

Postal code

3819693345

Approval date

2018-01-02, 1396/10/12

Ethics committee reference number

IR.ARAKMU.REC.1396.277

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

Complications of surgical wound

ICD-10 code

T81

ICD-10 code description

Complications of procedures, not elsewhere classified

2**Description of health condition studied**

Complications of surgical wound

ICD-10 code

T81.4

ICD-10 code description

Infection following a procedure

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

Wound surface

Timepoint

In the first 24 hours after surgery to one month

Method of measurement

Patients' wounds are followed for two weeks and at the end of every three days to one month, the wounds of patients are evaluated.

Secondary outcomes

empty

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

Washing with normal saline, spraying diluted thyme essential oil spray on the wound, then sterilized gas impregnated with diluted essential oil on the wound and closed with the band. This is done 1-2 times a day, depending on the patient's condition.

Category

Treatment - Drugs

2**Description**

Control group: Normal saline and sterile gauze dressing. Then the sterilized sterilized gas with normal saline is

laid on the wound and closed with the band. This is done 1-2 times a day, depending on the patient's condition.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Hospital of Vali-e Asr Arak

Full name of responsible person

Dr. Mohammad Arjomandzadegan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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Grant name

Grant code / Reference number

2977

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

Yes

Title of funding source

Arak 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

Arak University of Medical Sciences

Full name of responsible person

Ghasem Habibi

Position

Research Assistant

Latest degree

Bachelor

Other areas of specialty/work

Traditional Medicine

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

Dr.Mohammad Arjomandzadegan

Position

Associate Professor

Latest degree

Ph.D.

Other areas of specialty/work

Microbiology

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

Kebria Azangoo Araghi

Position

Research Assistant

Latest degree

Medical doctor

Other areas of specialty/work

Nursery

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

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable