

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 2026

Effects of Zataria thyme essential oil on controlling inflammation of second degree burn wounds in children

Protocol summary

Study aim

Evaluation of the effect of essential oil on the prevention of second-degree burn wound infection

Design

Among the incidents that endanger the health and life of humans, burn injury is one of the hardest of them. This study is a study in which a thyme medicine herb is used to complete the treatment of burn patients. So that patients with burns, in addition to fulfilling the orders of the respected physician and taking the prescribed medications for them, the soluble thyme essential oil will be placed on the wounds of burn patients. 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

Clinics and burn wards of Vali Asr Hospital in Arak are included in the plan.

Participants/Inclusion and exclusion criteria

Age from 2 to 10 years old, no underlying disease other than diabetes, first-degree and two-layer and deep burn wounds

Intervention groups

Intervention group: Patient with second-degree burn wound, out- patients or In-patients in Valiasr Hospital, aged 2 to 10 years, patients of both sexes will be treated by silver sulphophylazine ointment as well as by diluted Thyme essential oil. Control group: patients with second-degree burns, out- patients or In-patients, who only receive treatment only with silver sulphophylazine ointment .

Main outcome variables

Evaluation and comparing the size of the wound between both groups

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161017030336N1**

Registration date: **2018-12-03, 1397/09/12**

Registration timing: **registered_while_recruiting**

Last update: **2018-12-20, 1397/09/29**

Update count: **1**

Registration date

2018-12-03, 1397/09/12

Registrant information

Name

Ghasem Habibi

Name of organization / entity

Islamic azad university

Country

Iran (Islamic Republic of)

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+98 86 3367 3208

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dr.habibi@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-05-22, 1397/03/01

Expected recruitment end date

2019-05-22, 1398/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Zataria thyme essential oil on controlling inflammation of second degree burn wounds in children

Public title

Effects of Zataria thyme essential oil on controlling inflammation of second degree burn wounds in children

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age between 2 and 10 years old. Having no underlying disease other than diabetes. The presence of first and second degree superficial burns.

Exclusion criteria:

Unwillingness to continue treatment

Age

From **2 years** old to **10 years** old

Gender

Both

Phase

1-2

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

Control and intervention groups will be selected randomly using random number table.

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

2017-12-03, 1396/09/12

Ethics committee reference number

IR.ARAKMU.REC.1396.217

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

Burn of second degree of head and neck

ICD-10 code

T20.2

ICD-10 code description

Burn of second degree of head and neck

2**Description of health condition studied**

Burn of second degree of trunk

ICD-10 code

T21.2

ICD-10 code description

Burn of second degree of trunk

3**Description of health condition studied**

Burn of second degree of shoulder and upper limb

ICD-10 code

T22.2

ICD-10 code description

Burn of second degree of shoulder and upper limb

4**Description of health condition studied**

Burn of second degree of wrist and hand

ICD-10 code

T23.2

ICD-10 code description

Burn of second degree of wrist and hand

5**Description of health condition studied**

Burn of second degree of hip and lower limb

ICD-10 code

T24.2

ICD-10 code description

Burn of second degree of lower limb, except ankle and foot

6**Description of health condition studied**

Burn of second degree of ankle and foot

ICD-10 code

T25.2

ICD-10 code description

Burn of second degree of ankle and foot

Primary outcomes

1

Description

Wound surface

Timepoint

The ulcer would be follow up during two weeks and at the end of three days the ulcer will be assessed.

Method of measurement

photography will be done by camera from patients wounds.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: This group is treated with normal saline and silvered ointment. In addition, spraying diluted thyme essential oil spray 1-2 times depending on the patient's condition. Wound healing condition is checked.

Category

Treatment - Drugs

2

Description

Control group: This group is washed with normal saline and with silver ointment. they receive. Then sterile gas impregnated with silver sulfadiazine ointment is laid on the wound and closed with the band. This is done 1-2 times a day, depending on the patient's condition. The condition for wound healing is checked.

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

Research Assistant of Arak University of Medical Sciences:

Full name of responsible person

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Grant name

Grant code / Reference number

2940

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

Yes

Title of funding source

Research Assistant of 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

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Person responsible for updating data

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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