Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Investigating the effects of using new aluminum-based dressings versus silver sulfadiazine ointment in the treatment of patients with second- and third-degree burns

Protocol summary

Study aim

To investigate the healing status, reduction of wound surface, wound infection, reduction of pain, rate of healing, and length of hospital stay of patients using new dressings compared to silver sulfadiazine ointment in patients with 2nd and 3rd degree burns.

Design

A randomized, open-label, parallel-group, controlled clinical trial, phase 3, on 74 patients

Settings and conduct

Patients with 2nd and 3rd degree burns admitted to Taleghani Hospital in Ahvaz, after excision of the wounds in the operating room, are divided into two groups: a new aluminum-based dressing and the other group is given SSD ointment, and the wound condition is re-evaluated 5 days later.

Participants/Inclusion and exclusion criteria

Patients with 2nd and 3rd degree burns, failure to use medications effective in wound healing, and wounds without trauma or infection are inclusion criteria. Patients with wounds containing necrotic and infected tissue, and patients with trauma and first degree burns are excluded

Intervention groups

Patients with 2nd and 3rd degree burns hospitalized under a new aluminum-based dressing compared to a dressing with silver sulfadiazine ointment

Main outcome variables

The results of this study will greatly assist us in selecting the type of dressing to accelerate the healing process, reduce the risk of infection, reduce the surface area and the number of cases requiring dressings in second- and third-degree burn wounds, as well as reduce the use of antibiotics and prevent the development of drug resistance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20250802066732N1**
Registration date: **2025-08-07, 1404/05/16**
Registration timing: **prospective**

Last update: **2025-08-07, 1404/05/16**
Update count: **0**

Registration date

2025-08-07, 1404/05/16

Registrant information

Name

Abbasali Eskandarion

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 11 3236 9748

Email address

eskandarion.a@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-08-23, 1404/06/01

Expected recruitment end date

2026-08-23, 1405/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Investigating the effects of using new aluminum-based dressings versus silver sulfadiazine ointment in the treatment of patients with second- and third-degree burns

Public title
Investigating the effects of new dressing versus ointment in the treatment of patients with second-and third-degree burns

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Burn diagnosis,second and third degree Wounds without trauma and infection Not using effective drugs for wound healing

Exclusion criteria:
First-degree burn Patient presented late and did not have an initial wound Wounds containing necrotic and infected tissue

Age
No age limit

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **74**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomized block design based on burn type (above 30%and less30%)and two types of treatment(new aluminum-based dressing and silver sulfadiazine ointment)

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Does not have

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Ahvaz University of Medical Sciences

Street address
No.5 Nosrat 2 Alley, Gol9 Ave., Babol

City
Babol

Province
Mazandaran

Postal code
4714766548

Approval date
2025-08-02, 1404/05/11

Ethics committee reference number
IR.AJUMS.REC.1404.254

Health conditions studied

1

Description of health condition studied
Second and third degree burns

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Wound healing, which is estimated based on its appearance and characteristics, wound infection, which is measured by wound appearance criteria, and length of stay, which is expressed as the number of days spent in the hospital from admission to discharge.

Timepoint
5 days from the start of the dressing and at the same intervals if necessary

Method of measurement
Check the condition of the wound

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patients with 2nd and 3rd degree burns who were treated with aluminum-based dressings and were re-evaluated for wound status after 5 days.Aluderm dressing, manufactured by the German company sohngen, is placed directly on the wound, and a special dressing gauze is placed on it and a bandage is applied. Aluderm is made of trivalent aluminum, is flexible, and fits comfortably on the limb.

Category
Treatment - Drugs

2

Description
Control group: Patients with 2nd and 3rd degree burns who are dressed with silver sulfadiazine ointment and their dressings must be changed daily. This cream is

available in 50 gram tubes manufactured by Iran Najou and Sobhan Darou pharmaceutical companies and is applied directly to the burn wound to completely cover the wound, and the dressing is changed once or twice a day.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Taleghani Accident and Burn Hospital, Ahvaz
Full name of responsible person
Dr. Seyed Saheb Hosseini Nejad
Street address
Phase 2 padadshahr, Hejrat Boulevard, Taleghani Hospital, Padadshahr
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Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ahvaz University of Medical Sciences
Full name of responsible person
Abdollah Rafiei
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Ahvaz University of Medical Sciences
Proportion provided by this source
70
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
Ahvaz University of Medical Sciences
Full name of responsible person
abbasali eskandarion
Position
Plastic and Reconstructive Surgery Resident
Latest degree
Specialist
Other areas of specialty/work
General Surgery
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Person responsible for scientific inquiries

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Person responsible for updating data

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Latest degree

Specialist

Other areas of specialty/work

General Surgery

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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

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

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

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

Data Dictionary

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