

Clinical Trial Protocol

Iranian Registry of Clinical Trials

02 Jul 2026

To study the effect of infrared radiation on the healing of lower extremity ulcers in diabetic foot

Protocol summary

Summary

Background: Diabetic foot ulcer is a worldwide health care concern affecting tens of thousands of patients. If this ulcer is not treated well, it can create irretrievable difficulties. This study was designed to study the effect of infrared radiation on the healing of diabetic foot ulcer.

Method: This was a clinical trial that was performed among hospitalized patients in Dr. Ganjavian hospital of Dezful . Sampling was purposeful and 50 patients, with stage 1 or 2 Diabetic foot ulcer, were selected. Then they were divided randomly in two groups. 25 patients were treated by routine dressing and 25 patients by Infrared radiation besides the routine dressing. All subjects matched using age, sex, Body Mass Index (BMI), stage of Diabetic foot ulcer, location of ulcer. Ulcers in two groups, was assessed by checklist in the zero, first, second, third and fourth weeks. Assessment parameters contain: degree of sore, color, periphery tissue of sore and amount of ulcers exudate. State of ulcers was determined and categorized to complete healing, partial healing, without improvement or worsening.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138903034011N1**

Registration date: **2012-05-17, 1391/02/28**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-05-17, 1391/02/28

Registrant information

Name

Ali Sadeghi Moghaddam

Name of organization / entity

Dezful faculty of medical sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Private

Expected recruitment start date

2009-11-06, 1388/08/15

Expected recruitment end date

2010-04-04, 1389/01/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

To study the effect of infrared radiation on the healing of lower extremity ulcers in diabetic foot

Public title

Effect of infrared radiation on the healing of lower extremity ulcers in diabetic patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 1- diabetic foot ulcer in extremity organs; 2- diabetic foot ulcer of 1 or 2 degree; 3- having diabetes for at least 5 years. Exclusion criteria: 1- addiction; 2-smoking.

Age

From **30 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 50

Randomization (investigator's opinion)

Randomized

Randomization description

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

Ahwaz university of medical sciences

Street address

Central organization of Ahwaz university of medical sciences, university town

City

Ahwaz

Postal code

15794 - 61357

Approval date

empty

Ethics committee reference number

190//20/8/پ

Health conditions studied

1

Description of health condition studied

Diabetic foot

ICD-10 code

I79.2

ICD-10 code description

Peripheral angiopathy in diseases classified elsewhere

Primary outcomes

1

Description

healing of diabetic foot ulcer

Timepoint

Every week

Method of measurement

Check list to assess diabetic foot healing

Secondary outcomes

1

Description

healing time

Timepoint

during the study

Method of measurement

time from the beginning of study

Intervention groups

1

Description

Infrared radiation to diabetic foot in case group: use of 250-W tungsten lamp, made by OSRAM Company in Germany, after washing up the ulcer in the routine procedure. Before repeating the dressing, the patient was treated by infra-red radiation, once a day and seven days a week. This was carried out in the following way: a thermometer was placed on the surrounding of the healthy skin to record the temperature of that point and to ensure that the temperature did not exceed 42 degrees centigrade. The distance between the infra-red source and the skin was 30 cm and the radiation time was 20 minutes. The radiation angle was chosen as vertical according to Cosinus Lamirt law in order to absorb the maximum radiation and then wet dressing was performed.

Category

Other

2

Description

Routine dressing for control group: patient's ulcer and its peripheral tissues were immersed in a sterile tub of saline for 20 minutes and then they were dried by sterile gauze and were dressed in a sterile way after being put in a layer of wet gauze. This process was carried out twice a day, seven days a week. In case the dressing was removed because of excessive discharge or wetness, the dressing was repeated.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Dr. Ganjavian hospital

Full name of responsible person

Street address

City

Dezful

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Privait

Full name of responsible person

Ali sadeghi moghaddam

Street address

lDezful faculty of medical Sciences,Dezfu

City

Dezful

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Privait

Proportion provided by this source**Public or private sector**

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

2

Sponsor

Name of organization / entity

Ahwaz Jundishapur University of Medical Sciences

Full name of responsible person

Ashrafalsadat Hakim

Street address

Faculty of Nursing and Midwifery, Ahwaz Jundishapur University of Medical Sciences

City

Ahwaz

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Ahwaz Jundishapur University of Medical Sciences

Proportion provided by this source**Public or private sector**

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Dezful faculty of medical sciences

Full name of responsible person

Ali Sadeghi Moghaddam

Position

Master science of nursing, Faculty member

Other areas of specialty/work**Street address**

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Position**Other areas of specialty/work****Street address****City****Postal code****Phone****Fax****Email****Web page address**

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty