

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Compare the efficacy of nanocrystalline silver dressings compared with conventional dressings in patients with impaired upper limb crushed fingers

Protocol summary

Summary

Aim of this study is to compare the efficacy of nano crystalline silver dressings compared with conventional dressings in patients with impaired upper limb crushed fingers. This study is clinical trials and double blind. Inclusion criteria: age 18 to 70 years with Finger injury with damage to the muscle of the upper limb; crush injury in 10 to20 centimeter in muscles. Exclusion criteria: involvement of tendons, blood vessels, muscles, nerves and bones at the site of damage; systemic diseases such as cardiovascular disease, metabolic disorders, collagen vascular, immunosuppression (diabetes, transplant) malignant; inflammatory and infectious diseases at the same time; malnutrition (important in wound healing); addiction; pregnancy; breastfeeding; need for limb amputation; Loss of consciousness and traumatic brain injury; need for further surgery on the wound; history of skin allergy to silver; infected wounds before applying the dressing at first stage. there are 70 patients . We will divide patients in to two groups randomly. We treat 35 patients with nano crystalline silver in intervention group. We treat 35 patients with normal wound dressing in control group. We will follow the wound improvement at the end of first, second, third and fourth visits (4 times) after surgery. We will follow-up by phone.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017021520258N33**

Registration date: **2017-03-06, 1395/12/16**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-03-06, 1395/12/16

Registrant information

Name

Fariba Farokhi

Name of organization / entity

Arak University of Medical Sciences

Country

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+98 86 3222 2003

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor and research, Arak University of Medical Sciences

Expected recruitment start date

2016-06-14, 1395/03/25

Expected recruitment end date

2017-06-15, 1396/03/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Compare the efficacy of nanocrystalline silver dressings compared with conventional dressings in patients with impaired upper limb crushed fingers

Public title

Compare the efficacy of nanocrystalline silver dressings compared with conventional dressings in patients with

impaired upper limb crushed fingers

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria: age 18 to 70 years with Finger injury with damage to the muscle of the upper limb; crush injury in 10 to 20 centimeter in muscles. Exclusion criteria: involvement of tendons, blood vessels, muscles, nerves and bones at the site of damage; systemic diseases such as cardiovascular disease, metabolic disorders, collagen vascular, immuno suppression (diabetes, transplant) malignant; inflammatory and infectious diseases at the same time; malnutrition (important in wound healing); addiction; pregnancy; breastfeeding; need for limb amputation; Loss of consciousness and traumatic brain injury; need for further surgery on the wound; history of skin allergy to silver; infected wounds before applying the dressing first stage

Age
From **18 years** old to **70 years** old

Gender
Both

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **70**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Randomize by table of random numbers

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee Arak University Of Medical Sciences

Street address

Vice chancellor for research, Payambar azam complex, Basij square, Sardasht, Arak

City

Arak

Postal code

38149578558

Approval date

2016-06-13, 1395/03/24

Ethics committee reference number

1395.98. IR.ARAKMU.REC

Health conditions studied

1

Description of health condition studied

Crush injury

ICD-10 code

S57

ICD-10 code description

Crushing injury of forearm

Primary outcomes

1

Description

Improving wound

Timepoint

End of first, second, third and fourth (4 times) after surgery

Method of measurement

Clinical

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: applying nano crystalline silver in intervention group.

Category

Treatment - Drugs

2

Description

Control group: applying normal wound dressing in control group.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Valiasr Hospital

Full name of responsible person

Dr Amani

Street address

Valiasr Hospital, Arak

City

Arak

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Arak University of Medical Sciences

Full name of responsible person

Dr Mohammad Rafiee

Street address

Vice chancellor for research, Payambar Azam Complex, Basij square, Sardasht, Arak

City

Arak

Grant name

-

Grant code / Reference number

-

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

Yes

Title of funding source

Vice chancellor for research, Arak University of Medical Sciences

Proportion provided by this source

100

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**

Arak University of Medical Sciences

Full name of responsible person

Dr Morteza Gharibi

Position

Faculty, Emergency Medicine Specialist

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

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Faculty, Orthopedic

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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