Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Oct 2026

The effectiveness and non-effectiveness of adding electrical stimulation through the skin to stretching exercises on the changes in ankle range of motion in patients hospitalized in intensive care units

Protocol summary

Summary

This study will be done with aim to investigate the effectiveness of adding electrical stimulation through the skin to stretching exercises on the changes in ankle range of motion in patients hospitalized in intensive care units. This study is a single blind clinical trial. The study population will included all patients admitted to intensive care of hospitals in Kermanshah city. 36 patients will be selected in available method and in random permuted blocks will be assigned in two control and experimental groups. Before the intervention, the ankle dorsiflexion using standard goniometer will be measured. In the intervention group TENS current with stretching exercises is applied for 30 minutes at ankle. In the control group stretching exercises at the ankle are performed. In both groups stretching exercises are performed three times a week and each time 10 minutes for 2 weeks. After the intervention ankle dorsiflexion using a standard goniometer will be measured and difference between the two groups will be compared. Inclusion criteria: Patients who passes up to one week of admission in ICU; Aged 18 to 60 years; Patients who are unable to move their feet; Lack of musculoskeletal diseases and injuries in and around the ankle; ; Do not use electrical stimulation in the ankle in the past. Exclusion criteria: To cause skin allergy caused by contact electrodes during interventions; TENS intolerance during interventions

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017010814333N64**
Registration date: **2017-01-20, 1395/11/01**
Registration timing: **registered_while_recruiting**
Last update:
Update count: **0**

Registration date

2017-01-20, 1395/11/01

Registrant information

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Feizollah Foroughi
Name of organization / entity
kermanshah University of Medical Sciences
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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Kermanshah University of Medical Sciences

Expected recruitment start date

2017-01-20, 1395/11/01

Expected recruitment end date

2017-02-19, 1395/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effectiveness and non-effectiveness of adding electrical stimulation through the skin to stretching exercises on the changes in ankle range of motion in patients hospitalized in intensive care units

Public title
effectiveness of adding electrical stimulation through the skin to stretching exercises on the changes in ankle range of motion in patients hospitalized in intensive care units
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: Patients who passes up to one week of admission in ICU; Aged 18 to 60 years; Patients who are unable to move their feet; Lack of musculoskeletal diseases and injuries in and around the ankle; ; Do not use electrical stimulation in the ankle in the past. Exclusion criteria: To cause skin allergy caused by contact electrodes during interventions; TENS intolerance during interventions; The ability to move legs voluntarily during interventions
Age
From **18 years** old to **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **36**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Single blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features
Block randomization based on permutation

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Kermanshah University of Medical Sciences
Street address
Building No.2, Shahid Beheshti, Vice Chancellor for Research Affairs, Kermanshah University of Medical Sciences
City
Kermanshah
Postal code
Approval date
2016-12-28, 1395/10/08
Ethics committee reference number
kums.rec.1395.563

Health conditions studied

1

Description of health condition studied
Stroke
ICD-10 code
I63.9
ICD-10 code description
Cerebral infarction, unspecified

Primary outcomes

1

Description
The ankle dorsiflexion
Timepoint
Baseline, the end of the study
Method of measurement
Using standard goniometer

Secondary outcomes

empty

Intervention groups

1

Description
In the intervention group TENS current with stretching exercises is applied at ankle
Category
Behavior

2

Description
In the control group stretching exercises at the ankle are performed
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Hospitals in Kermanshah
Full name of responsible person
Asghar Rostami
Street address
Emam Reza Hospital, Parastar Boulevard
City
Kermanshah

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Kermanshah University of Medical Sciences
Full name of responsible person
Koroush Hamzehee
Street address
Building No.2, Shahid Beheshti, Vice Chancellor for Research Affairs, Kermanshah University of Medical Sciences
City
Kermanshah
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, Kermanshah 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

Person responsible for scientific inquiries

Contact
Name of organization / entity
Kermanshah University of Medical Sciences
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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