Clinical Trial Protocol
Iranian Registry of Clinical Trials

27 Jul 2026

Evaluation of the effect of kinesiology tape on pain and respiration of patients with rib fracture and flail chest

Protocol summary

Summary

Objectives: Evaluation of the effect of kinesiology tape on pain and respiration of patients with rib fracture and flail chest. Design: This is a randomized, blind, clinical trial. Participants: 32 blunt trauma patients with rib fracture that were admitted in Intensive Care Unit (ICU) of Shahid Rajaee Trauma Center were selected. Inclusion criteria: blunt trauma patients with rib fracture and/or flail chest. Exclusion criteria: multiple trauma; history of respiratory disease such as COPD and asthma; decreased level of consciousness. Intervention: All patients were managed by routin pain control protocols, and were stratified in two groups; for one group (17 persons) kinesiology tape was applied. Main Outcome Measures: pain degree using Visual Analog Scale (VAS) and arterial oxygen saturation using pulse oxymetry Upon admission, one hour after taping, and before discharge, and ward and ICU admission were compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017071634852N2**
Registration date: **2017-09-15, 1396/06/24**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-09-15, 1396/06/24

Registrant information

Name

Mahnaz Bolandi

Name of organization / entity

Shiraz University of Medical Science

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2015-03-20, 1393/12/29

Expected recruitment end date

2016-03-20, 1395/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effect of kinesiology tape on pain and respiration of patients with rib fracture and flail chest

Public title

Evaluation of the effect of kinesiology tape on pain and respiration of patients with rib fracture and flail chest

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: blunt trauma patients with rib fracture and/or flail chest. Exclusion criteria: multiple trauma; history of respiratory disease such as COPD and asthma; decreased level of consciousness.

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **32**

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

Shiraz University of Medical Sciences

Street address

Cental building of shiraz university of medical science, karimkhan zand blvd, shiraz

City

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Postal code

Approval date

2016-08-23, 1395/06/02

Ethics committee reference number

IR.SUMS.MED.REC.1395.30

Health conditions studied

1

Description of health condition studied

Trauma patients with rib fracture and/or flail chest

ICD-10 code

S22.4

ICD-10 code description

Multiple fractures of ribs

Primary outcomes

1

Description

Pain degree

Timepoint

Upon admission, one hour after taping, before discharge

Method of measurement

VAS (Visual Analog System)

2

Description

Arterial oxygen saturation and respiratory function

Timepoint

Upon admission, one hour after taping, before discharge

Method of measurement

Pulse oxymetry

Secondary outcomes

empty

Intervention groups

1

Description

In addition of routine pain control protochols, for interventional group Kinesiology tape on broken ribs was applied.

Category

Treatment - Other

2

Description

For control group, routin pain control protocols was applied, such as oxygen, pain killer drugs

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Intensive Care Unit (ICU) of Shahid RajaeeTtrauma Center

Full name of responsible person

Street address

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Dr.Sharareh Roshan Zamir

Street address

Physical medicine and rehabilitation ward, Faghihi hospital, Karimkhan zand boulevard,

City

Shiraz

Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?
Yes
Title of funding source
Shiraz 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

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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