Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The effect of rhythmic breathing on chest pain and cardiorespiratory parameters Acute Coronary Syndrome patients admitted at CCU

Protocol summary

Summary

This study is a clinical trial to determine the effect of rhythmic breathing on the chest pain and cardiorespiratory parameters in patients with acute coronary syndrome (ACS) admitted to cardiac care unit (CCU). The study sample consist of 112 patients diagnosed with acute coronary syndrome and the inclusion criteria are: (ACS definitive diagnosis by the cardiologist; the lack of critical state of health; etc). The subjects will be selected of the CCU CHAMRAN hospital in Tehran in 2014 and will be randomized into intervention and control groups. The demographic and disease questionnaire will be completed for each patient. The intervention group will do the rhythmic breathing for twenty minutes every five minutes once and it will take a minute. In this way that the patient with closed eyes will be supine state and with counting numbers 1, 2 and 3 will enter air through the nose into the lungs, then by counting 1, 2 and 3 will keep the air in their lungs and finally, by counting 1, 2 and 3 will out the air through the mouth. Within twelve hours of admission to hospital, if chest pain occurs, in both groups the pain intensity will be measured by the McGill questionnaire and cardiorespiratory parameters will be monitored too.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201411097225N2**
Registration date: **2014-12-15, 1393/09/24**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-12-15, 1393/09/24

Registrant information

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Narges Saber
Name of organization / entity
Gonabad Uneversity of Medical Sciences
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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2014-05-22, 1393/03/01

Expected recruitment end date

2015-03-20, 1393/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of rhythmic breathing on chest pain and cardiorespiratory parameters Acute Coronary Syndrome patients admitted at CCU

Public title

The effect of rhythmic breathing on Acute Coronary Syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Volunteer for research; ACS definitive diagnosis by the cardiologist; Lack of critical state of health (no cardiac dysrhythmia, hemodynamic and

peripheral capillary oxygen saturation less than 80%) licensed clinician; Non-smoking; Lack of alcoholism and drug; Lack of respiratory diseases, gastrointestinal, diabetes and mental recognized and diagnosed by a physician; Age between 15-85 years Exclusion criteria: Lack of satisfaction for cooperation; Create a life-threatening situation; The creation of any intervening circumstances that made it impossible to continue

Age
From **8 years** old to **92 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **112**

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
Gonabad University of Medical Sciences

Street address
Gonabad University of Medical Sciences, Asian road, Gonabad, Khorasan Razavi, Iran

City
Gonabad

Postal code

Approval date
2014-05-22, 1393/03/01

Ethics committee reference number
gmu.rec.1393.5

Health conditions studied

1

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I20.0

ICD-10 code description
Unstable angina

2

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.0

ICD-10 code description
Acute transmural myocardial infarction of anterior wall

3

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.1

ICD-10 code description
Acute transmural myocardial infarction of inferior wall

4

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.2

ICD-10 code description
Acute transmural myocardial infarction of other sites

5

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.3

ICD-10 code description
Acute transmural myocardial infarction of unspecified site

6

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.4

ICD-10 code description
Acute subendocardial myocardial infarction

7

Description of health condition studied
Acute Coronary Syndrome

ICD-10 code
I21.9

ICD-10 code description
Acute myocardial infarction, unspecified

Primary outcomes

1

Description
Chest pain

Timepoint
Before and during 12 hours after intervention.
Method of measurement
McGill pain scale

2

Description
Systolic and diastolic blood pressure
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Monitoring

3

Description
Respiratory rate
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Monitoring

4

Description
Respiratory rythme
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Monitoring

5

Description
Pulse rate
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Monitoring

6

Description
Pulse rythme
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Electrocardiogram

7

Description
peripheral capillary oxygen saturation
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Pulse oxymeter

8

Description
The need for drug
Timepoint
Before and during 12 hours after intervention.
Method of measurement
Patient pan card

Secondary outcomes

empty

Intervention groups

1

Description
The intervention group will do the rhythmic breathing for twenty minutes every five minutes once and it will take a minute and during their breathing will focus only on entering and leaving air. In this way that the patient will be supine state with eyes closed and with counting numbers 1, 2 and 3 will enter air through the nose into the lungs, then by counting 1, 2 and 3 will keep the air in their lungs and finally, by counting 1, 2 and 3 will out the air through the mouth.
Category
Other

2

Description
In control group, the intervention will not take place except routine treatments.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Doctor Chamran Hospital of Tehran
Full name of responsible person
Street address
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Investigator
Full name of responsible person
Narges Saber
Street address
Gonabad University of Medical Sciences, Asian road, Gonabad, Khorasan Razavi, Iran
City
Gonabad
Grant name
Grant code / Reference number
Is the source of funding the same sponsor

organization/entity?
Yes
Title of funding source
Investigator
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
Gonabad University of Medical Sciences
Full name of responsible person
Narges Saber
Position
Msc student in intensive care nursing
Other areas of specialty/work
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Person responsible for updating data

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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