Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Effect of deep and slow breathing on consequences of pain during arterial sheath removal in patients undergoing percutaneous coronary intervention

Protocol summary

Summary

Patients who underwent coronary angioplasty placed first with a purposive sample included in the study and randomly placed in two groups. Before removing the sheet, deep breathing techniques are taught to the patient and asked for action to inhale and exhale ratio of 4: 6 do. This face to face training to maintain the direction of the tail to the expiration of counting used. All sheet for 5 minutes after starting slow, deep breathing and took out the tail end. Patients in the control group in the usual way and without the use of deep breathing and slow the sheet out. To collect data, a questionnaire on demographic information (age, sex, marital status, occupation, education level, height and weight, underlying diseases (diabetes, hypertension) is used. The pain and hemodynamic symptoms such as systolic blood pressure and diastolic, heart rate and respiratory rate), to remove the sheet, immediately, 5, 10, 15, and 20 minutes after removal of the arterial sheath can be measured. To measure the intensity of the pain visual analogue scale of pain. Clean exit the vascular complications (bleeding, hematoma , pseudoaneurysm) immediately, 4 and 24 hours after the check homeostasis and in case of any complications will be recorded.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015050622120N1**
Registration date: **2015-11-03, 1394/08/12**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2015-11-03, 1394/08/12

Registrant information

Name
Zahra Yousefi
Name of organization / entity
Arak University Of Medical Science
Country
Iran (Islamic Republic of)
Phone
+98 21 8800 2120
Email address
z.yusefi@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Arak University of Medical Sciences

Expected recruitment start date

2015-10-23, 1394/08/01

Expected recruitment end date

2016-01-21, 1394/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of deep and slow breathing on consequences of pain during arterial sheath removal in patients undergoing percutaneous coronary intervention

Public title

Effect of deep and slow breathing on consequences of pain during arterial sheath removal in patients undergoing percutaneous coronary intervention

Purpose

Supportive

Inclusion/Exclusion criteria

Patients in the study are that have these criteria: • For the first time undergoing coronary angioplasty, as well. • Have the ability to learn. • Has a mental disorder is not known, according to their relatives. • Fluency in Farsi and is able to communicate. • To participate in the study have written consent. • Systolic blood pressure is less than 130 mmhg. • any shortness of breath and breathing difficulties are clear. • The absence of pain and complication of vascular puncture to remove the sheet. Patients who have the following conditions shall be excluded: • Housing has received for any reason. • Experience shortness of breath, irregular heart disease, congestive heart failure or heart attack is. • Experiencing cardiac arrest is from respiratory or loss of consciousness. • Be deterred from continuing to study. • Fatal or transfer him to the operating room for emergency surgery any.

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **60**

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
Arak University of Medical Sciences

Street address
Arak University of Medical Sciences, Sardasht

City
Arak

Postal code

Approval date
2015-04-20, 1394/01/31

Ethics committee reference number
IR.ARAKMU.REC.1394.1

Health conditions studied

1

Description of health condition studied
Patients undergoing coronary angioplasty

ICD-10 code
Z95.5

ICD-10 code description
Status following coronary angioplasty NOS

Primary outcomes

1

Description
Pain

Timepoint
Before the intervention, immediately after the intervention, 10 and 20 minutes after intervention

Method of measurement
Pain visual scale

Secondary outcomes

1

Description
Blood pressure

Timepoint
Before the intervention, immediately, 5,10,15,20 minutes later

Method of measurement
Digital Sphygmomanometer

2

Description
Pulse Rate

Timepoint
Before the intervention, immediately, 5,10,15,20 minutes later

Method of measurement
Cardiac monitoring

3

Description
Respiratory rate

Timepoint
Before the intervention, immediately, 5,10,15,20 minutes later

Method of measurement
Respiration monitoring

4

Description
Bleeding

Timepoint
Immediately after the homeostasis, 4 and 24 hours later

Method of measurement

Observation

5

Description
Hematoma
Timepoint
Immediately after the homeostasis, 4 and 24 hours later
Method of measurement
Observation and examination

6

Description
Pseudoaneurism
Timepoint
Immediately after the homeostasis, 4 and 24 hours later
Method of measurement
Observation and examination and sonography

Intervention groups

1

Description
Patients in the intervention group admission is trained on how to take slow, deep breathing and 15 minutes before leaving again in terms of learning and doing clean properly controlled technique. To perform this procedure the patient is asked to breathe and exhale ratio 4: 6 do. The training face to face and to protect the tail of the expiration of counting used. Patients from 5 minutes before removing the sheet for 15 minutes , deep breathing and relaxation techniques to do. Patients will be asked to close your eyes while performing these techniques on how to do breathing and focus, as well as a hand on the abdomen and the other hand on their chest. Patients are taught to breathe through the nose and exhale through the mouth counts one to four, and act and do by counting from one to six . To ensure the patient will be asked to learn the technique for 1 minute in the presence of the researcher. All sheet for 5 minutes after starting slow, deep breathing and took out the tail end.
Category
Prevention

2

Description
In the control group, patients in the usual way and without the use of deep breathing and slow the sheet out.
Category
N/A

Recruitment centers

1

Recruitment center
Name of recruitment center
Dr Shariati Hospital
Full name of responsible person
Zahra Yousefi
Street address
Jalale Ale Ahmad Highway
City
Tehrsn

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Arak University of Medical Sciences
Full name of responsible person
Zahra Yousefi
Street address
Arak University of Medical Sciences, Sardasht
City
Arak
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
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. Kobra Rahzani
Position
PhD in Nursing
Other areas of specialty/work
Street address
Shahid shiroodi Ave., Alamolhoda Ave.
City
Arak
Postal code
Phone
+98 86 3313 6055
Fax
Email
k.rahzani@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Arak University of Medical Sciences

Full name of responsible person
Dr. Kobra Rahzani

Position
PhD in Nursing

Other areas of specialty/work

Street address
Shahid shiroodi Ave., Alamolhoda Ave.

City
Arak

Postal code

Phone
+98 86 3313 6055

Fax

Email
k.rahzani@yahoo.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity
Arak University Of Medical Science

Full name of responsible person
zahra yousefi

Position
master student of critical care nursing

Other areas of specialty/work

Street address
NO.314- Samangan St.

City
Tehran

Postal code
1645887885

Phone
+98 77817056

Fax

Email
zahra.yousefi@gmail.com

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