Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The effect of oxygen therapy with nasal cannula and Venturi mask on SPO2 and arterial blood gases after extubation in patients undergoing CABG

Protocol summary

Study aim

Determination of the effect of oxygen therapy with nasal catheter and ventricular mask, after removing the tracheal tube, on the saturation of hemoglobin saturated with oxygen and arterial blood gas in patients undergoing coronary artery bypass graft surgery

Design

Randomized random sampling from patients with inclusion criteria was performed using random allocation software. After selecting the study samples, they were assigned to two groups using the random allocation software. The number of samples was considered to be 120 patients in two groups of mask and nasal catheter.

Settings and conduct

Performing oxygen therapy with nasal catheter and mask for half an hour after removing the tracheal tube and recording vital signs and data on arterial blood gases in patients who had entered the study, who performed in the intensive care unit of the heart of Afshar, Yazd Became.

Participants/Inclusion and exclusion criteria

Inclusion criteria Having ages 40 to 70 years, patients undergoing coronary artery bypass graft surgery, facial skin and ear and nose, and absence of chronic obstructive pulmonary disease, Ejection Fraction > 40% before surgery Exit criteria Lack of successful weaning, lack of self-breathing after Extract the tracheal tube, abnormal level of consciousness (Glasgow Coma Scale <15), Instability of the patient's vital signs (more than 500 cc discharge in 6 hours on the first day)

Intervention groups

mask group and nose catheter group

Main outcome variables

Oxygen therapy, arterial blood gases and vital signs

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170701034831N2**
Registration date: **2018-09-03, 1397/06/12**
Registration timing: **registered_while_recruiting**

Last update: **2018-09-03, 1397/06/12**
Update count: **0**

Registration date

2018-09-03, 1397/06/12

Registrant information

Name
Hamide Setoodenia karani
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 35 3824 1751
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Recruitment status

Recruitment complete

Funding source

Shahid Sadoughi University of Medical Sciences Yazd

Expected recruitment start date

2018-08-23, 1397/06/01

Expected recruitment end date

2018-11-22, 1397/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
The effect of oxygen therapy with nasal cannula and Venturi mask on SPO2 and arterial blood gases after extubation in patients undergoing CABG

Public title
The effect of oxygen therapy with nasal cannula and Venturi mask on arterial blood gases

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age 40 to 70 years Patients undergoing coronary artery bypass graft surgery Healthy facial skin and ears and nose Lack of chronic obstructive pulmonary disease Ejection Fraction > 40% before surgery

Exclusion criteria:
Unsuccessful weaning of ventilator device Not having spontaneous breath after removing the tube trachea Glasgow Coma Scale < 15 Vital Signs unstable

Age
From **40 years** old to **70 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Care provider
- Investigator
- Data analyser

Sample size
Target sample size: **120**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomized random sampling from patients with inclusion criteria was performed using random allocation software. After selecting the study samples, they were assigned to two groups using the random allocation software.

Blinding (investigator's opinion)
Single blinded

Blinding description
The trained nurse responsible for collecting samples is due to the same type of care in relation to all patients.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Yazd University of Medical Sciences

Street address
Bahonar Square, Shahid Sadoughi Blvd, Bahonar Square.

City
Yazd

Province
Yazd

Postal code
8917182995

Approval date
2017-10-09, 1396/07/17

Ethics committee reference number
ir.ssu.rec.1396.79

Health conditions studied

1

Description of health condition studied
Signs and arterial blood gases after extubation

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Arterial blood gases and vital signs

Timepoint
Immediately before and after caffeine and time after intercourse

Method of measurement
Arterial blood sample, monitoring of vital signs, vas

Secondary outcomes

empty

Intervention groups

1

Description
Oxygen therapy by two methods of nasal cannula and Vancouver massage at a rate of six liters per minute for half an hour after extubation of the trachea

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Afshar haspital

Full name of responsible person

Hamide Setoodenia Karani

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Faculty of Nursing., Infertility Research Center., Bouali Ave., timsar Fallah Avenue., Safaiyeh

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Yazd University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Yazd University of Medical Sciences

Full name of responsible person

Hamide Setoodenia Karani

Position

Nurse

Latest degree

Bachelor

Other areas of specialty/work

Nursery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available