

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 Jul 2026

The Effect of Pulmonary Ventilation on postoperative Outcomes and Pulmonary Complications after coronary artery bypass graft(CABG)

Protocol summary

Summary

The aim of this study is evaluate the effect of ventilation during cardiopulmonary bypass on postoperative outcomes and pulmonary complications. Patients undergoing elective coronary artery bypass graft surgery with cardiopulmonary bypass are discussed. Exclusion criteria included patients with severe pulmonary disease before CABG and valve surgery in conjunction with coronary artery bypass grafting. After obtaining informed consent from the patient and perform routine monitoring and begin cardiopulmonary bypass patients were randomly allocated into two experimental or control groups. In the experimental group, intraoperative pulmonary ventilation with tidal volume of 3 -5 ml / kg and 11 breaths per minute continues and control group are in routine pulmonary ventilation discontinuation during bypass and put a breathing tube exposed to room air. Arterial blood gas variables and hemodynamic status at regular intervals during and after surgery is measured. After surgery we asses post operative outcomes such as tracheal extubation time, duration of ICU and hospital stay and of Atelectasis, pneumonia and pnemothorax based on chest X Ray and clinical evidence in both group. After recording the data, by using SPSS 16 we analysis them and evaluate the effect of ventilation on these variable.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014072418576N1**

Registration date: **2014-10-31, 1393/08/09**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-10-31, 1393/08/09

Registrant information

Name

Fateme Hasanshiri

Name of organization / entity

Kashan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Kashan university of medical sciences and health services

Expected recruitment start date

2014-03-21, 1393/01/01

Expected recruitment end date

2014-09-23, 1393/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Pulmonary Ventilation on postoperative Outcomes and Pulmonary Complications after coronary artery bypass graft(CABG)

Public title

The Effect of Pulmonary Ventilation in coronary artery bypass graft(CABG)

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criterion: patients who are candidate for elective surgery of CABG. Exclusion criteria: severe pulmonary disease before surgery and valve surgery at the same time.

Age

From **18 years** old to **99 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **70**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Kashan university of medical sciences and health services

Street address

Kashan university of medical sciences and health services. Kashan. IRAN

City

Kashan

Postal code

81511/87159

Approval date

2010-09-23, 1389/07/01

Ethics committee reference number

628/1/5/29/پ

Health conditions studied

1

Description of health condition studied

Pulmonary Ventilation during cardiopulmonary bypass on postoperative Outcomes and Pulmonary Complications

ICD-10 code

I25.9

ICD-10 code description

Chronic ischaemic heart disease, unspecified

Primary outcomes

1

Description

Pulmonary Ventilation on cardiopulmonary bypass

Timepoint

cardiopulmonary bypass

Method of measurement

number of breathing and tidal volume

Secondary outcomes

1

Description

postoperative Outcomes and Pulmonary Complications

Timepoint

after surgery

Method of measurement

evaluation of chest X ray

Intervention groups

1

Description

Pulmonary Ventilation during cardiopulmonary bypass in case group with respiratory rate 11\min and tidal volume 3- 5 ml\kg

Category

Prevention

2

Description

Disconnection from pulmonary ventilation during cardiopulmonary bypass in control group

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Beheshti Hospital, Open Heart Surgery Room

Full name of responsible person

Pourabbasi Mohamad Sadegh

Street address

Beheshti hospital. Kashan University of Medical Sciences, Kashan, Iran

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kashan University of Medical Sciences, Kashan, Iran

Full name of responsible person

Vice Chancellor for Research

Street address

87159/81151 Post Box, Ghotb ravandi
Boulevard, Kashan University of Medical Sciences,
Kashan, Iran

City

Kashan

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Kashan University of Medical Sciences, Kashan, Iran

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**

Kashan University of Medical Sciences, Kashan, Iran

Full name of responsible person

Mohamad Sadegh Pourabbasi

Position

Assistant professor

Other areas of specialty/work**Street address**

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Fax**Email****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