

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jun 2026

Comparison of the Effectiveness of Pancronium and Cisatracorium In the amount of oxygen consumption When Cardiopulmonary Bypass in Coronary Artery Bypass Graft surgery

Protocol summary

Study aim

Checking the amount of oxygen used and lactate and acidosis in patients undergoing coronary artery bypass graft surgery underlying illness and diffuse atherosclerosis and predisposed to vascular disease and hemodynamic disorders

Design

This study is a parallel clinical trials study

Settings and conduct

Study population will be patients with acute coronary syndrome who have been referred to Ardabil Imam Khomeini hospital for elective coronary vessel grafting. 39 patients will be randomly allocated to two groups. Patients in one group will receive cisatracurium while patients in the other group will receive pancronium. Later, the amount of intraoperative oxygen consumption will be calculated in both groups.

Participants/Inclusion and exclusion criteria

Inclusion criteria: a) Age:35 - 75 b) ASA Class: 2 or 3 c) EF 40% or More than d) Elective surgery Exclusion criteria: a) Sigaret or Opiat users b) Reoperation c) Allergy to drugs that using Sever d) Heart failure

Intervention groups

Intervention group 1: Patients receiving Pancuronium muscle relaxant at a rate of 1 microgram per kilogram body weight per minute Intervention group 2:Patients receiving Cisatracurium at 3 micrograms per kg of body weight per minute

Main outcome variables

Changes in oxygen consumption in surgery were coronary artery bypass

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190608043842N1**

Registration date: **2019-09-23, 1398/07/01**

Registration timing: **retrospective**

Last update: **2019-09-23, 1398/07/01**

Update count: **0**

Registration date

2019-09-23, 1398/07/01

Registrant information

Name

Azita Nikpoor

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 45 3359 1154

Email address

a.nikpoor@arums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-10-23, 1397/08/01

Expected recruitment end date

2019-03-16, 1397/12/25

Actual recruitment start date

2018-12-31, 1397/10/10

Actual recruitment end date

2019-05-20, 1398/02/30

Trial completion date

2019-05-20, 1398/02/30

Scientific title

Comparison of the Effectiveness of Pancronium and Cisatracorium In the amount of oxygen consumption When Cardiopulmonary Bypass in Coronary Artery

Bypass Graft surgery

Public title

Comparison of Pancronium and Cisatracorium in Reduse of oxygen Consumption

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age:35 - 75 ASA Class: 2 or 3 EF 40% or More than Elective surgery

Exclusion criteria:

Sigaret or Opiat users Reoperation Allergy to drugs that using Sever Heart failure

Age

From **35 years** old to **75 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor

Sample size

Target sample size: **54**

Actual sample size reached: **39**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization is a block type with 4 blocks and computer software.

Blinding (investigator's opinion)

Double blinded

Blinding description

In a double-blinded study, patients and the evaluator were blinded to the study procedure. Nevertheless, to prevent putting the patients at risk, there was no possibility of blinding for the anesthetis

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Ardebil University of Medical Sciences

Street address

Ardabil University of Medical Sciences ,Daneshgah street

City

Ardabil

Province

Ardabil

Postal code

۵۶۱۸۹-۸۵۹۹۱

Approval date

2018-12-26, 1397/10/05

Ethics committee reference number

IR.ARUMS.REC.1397.188

Health conditions studied

1

Description of health condition studied

Oxygen consumption in CABG surgery with CPB

ICD-10 code

I25.7

ICD-10 code description

Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris

Primary outcomes

1

Description

Changes in oxygen consumption in surgery were coronary artery bypass Surgery

Timepoint

Oxygen Consumption Measurement at Beginning (0) , 15 , 30 and 45 Minutes after Start of Cardiopulmonary Bypass

Method of measurement

Instrument for Arterial Blood Gass (ABG) Assessmentation

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: Patients receiving Pancuronium muscle relaxant at a rate of 1 microgram per kilogram body weight per minute

Category

Treatment - Drugs

2

Description

Control group:Patients receiving Cisatracurium at 3 micrograms per kg of body weight per minute

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Khomeini hospital

Full name of responsible person

Mohammad Hasanpour

Street address

Imam Khomeini Hospital , The street of martyrs Dr. Salman and Salim Noie Aghdam , Ardabil

City

Ardebil

Province

Ardabil

Postal code

5619647531

Phone

+98 45 3325 1401

Fax

+98 45 3325 1401

Email

Drmhd3051@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ardabil University of Medical Sciences

Full name of responsible person

Dr.Vadood Norouzi hassan borough

Street address

Fatemi Hospital , Shariati Square, Ardabil

City

Ardebil

Province

Ardabil

Postal code

5614733775

Phone

+98 45 3323 2520

Fax

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Email

V.norouzi@arums.ac.ir

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

Yes

Title of funding source

Ardabil 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

Ardabil University of Medical Sciences

Full name of responsible person

Dr.Vadood Norouzi hassan barough

Position

Assistant Professor/Anesthesiologist

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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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

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

all collected deidentified IPD, IPD collected for the primary outcome measure are to be shared.

When the data will become available and for how long

starting 6 months after publication

To whom data/document is available

documents will be available for people working in academic institutions and also people working in businesses.

Under which criteria data/document could be used

There will be no specific limitations to the utilization of the data.

From where data/document is obtainable

En Dr Mohammad Hassan pour-Imam khomeini Hospital , Ardabil; Islamic Republic of Iran Phone+98 452251401 Fax+98 452251401

What processes are involved for a request to access data/document

Correspondence through email only

Comments