

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Comparison of cardiac output changes measured by radial and femoral arteries during coronary artery bypass grafting

Protocol summary

Study aim

Comparison of cardiac output changes measured by radial and femoral arteries during coronary artery bypass grafting

Design

A clinical trial without a control group, with a single group, not blinded, not randomized group

Settings and conduct

This clinical trial is performed on patients at Shahid Mohammadi Hospital in Bandar Abbas. Patients with non-functional radial artery were first anesthetized with insulin syringe containing 2% lidocaine and then cannulated with a 20-gauge pink angiocut to measure arterial pressure and cardiac output and the necessary information would be recorded on a monitoring device. Then all patients receive anesthesia by the same induction method and after induction of adequate relaxation, the patient will be intubated. After receiving heparin full-dose and achieving acceptable ACT (> 480 sec), the patient will be fallen on the cardiopulmonary pump and after cardioplegia and cardiac arrest and hypothermia will be performed up to 32 degrees.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patient with American Society of Anesthesiologists of Classification (ASA Class II & III);
Exclusion criteria: Patients with American Society of Anesthesiologists of Classification (ASA Class above III);
Patients with EF <30%

Intervention groups

In this trial, we have an intervention group, where all patients receive the same anesthesia induction method, in which all patients receive 0.2 mg / kg of etomidate, 0.2 mg / kg of cisatracurium, and 10 µg / kg of fentanyl.

Main outcome variables

Heart Out

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171030037093N24**

Registration date: **2019-11-07, 1398/08/16**

Registration timing: **prospective**

Last update: **2019-11-07, 1398/08/16**

Update count: **0**

Registration date

2019-11-07, 1398/08/16

Registrant information

Name

Sadra Ansaripour

Name of organization / entity

Shahrekord University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 3650 3487

Email address

st_ansari.s@skums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-11-11, 1398/08/20

Expected recruitment end date

2020-04-08, 1399/01/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of cardiac output changes measured by radial and femoral arteries during coronary artery bypass

grafting

Public title

Comparison of cardiac output changes during coronary artery bypass grafting

Purpose

Diagnostic

Inclusion/Exclusion criteria

Inclusion criteria:

Patient with American Society of Anesthesiologists of Classification (ASA Class II & III)

Exclusion criteria:

Patients with American Society of Anesthesiologists of Classification (ASA Class above III) Patients with EF <30%

Age

From **30 years** old to **80 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **15**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Hormozgan University of Medical Sciences

Street address

Deputy of research and technology, the Supreme Prophet's Hospital, Bandar Abbas

City

Bandar Abbas

Province

Hormozgan

Postal code

9791991551

Approval date

2019-10-13, 1398/07/21

Ethics committee reference number

IR.HUMS.REC.1398.237

Health conditions studied

1

Description of health condition studied

Coronary Artery Bypass grafting

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

Heart Out

Timepoint

Before and after sternotomy, every ten minutes until pumping, immediately before CPB, immediately after aortic clamp removal and cardiac contractions, immediately after CPB removal, before and after sternal closure, as well as every hour at The intensive care unit is measured and recorded for 6 hours

Method of measurement

FloTrac/Vigileo

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: All patients were assigned to one group, receiving the same anesthetic induction method, with all patients receiving 0.2 mg / kg of etomidate, 0.2 mg / kg of cisatracurium and 10 µg / kg of fentanyl.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Mohammadi Hospital of Bandar Abbas

Full name of responsible person

Hashem Jarineshin

Street address

Boulevard of the Islamic Republic of Iran, Bandar Abbas, Shahid Mohammadi Hospital

City

Bandar Abbas

Province

Hormozgan

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9791991551

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+98 76 3334 7000

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Anrc.hums@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahre-kord University of Medical Sciences

Full name of responsible person

Dr. seyed Kamal Solati

Street address

Vice chancellor for research, Building No. 2,
University headquarters, Ayatollah Kashani Blvd

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Province

Chahar-Mahal-va-Bakhtiari

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8815713471

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kamal_solati@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahre-kord 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

Iran University of Medical Sciences

Full name of responsible person

Hashem Jarineshin

Position

Associate Professor of Anesthesiology

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

Street address

Department of Anesthesiology, Shahid Mohammadi

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

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Position

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Person responsible for updating data

Contact

Name of organization / entity

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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

No - There is not 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

No - There is not 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

Information about the main outcome can be shared.

When the data will become available and for how long

Start the access period 4 months after publishing the results

To whom data/document is available

Researchers working in academia

Under which criteria data/document could be used

Use data to complete clinical trial studies

From where data/document is obtainable

Shahid Mohammadi Hospital

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

After the investigation of researcher request and presentation of required documents will be accessible.

Comments