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)

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+98 31 3650 3487

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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
Postal code

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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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Shahrekord

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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 Hospital

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Person responsible for updating data

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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