Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparison of the efficacy of the administration of ephedrine and phenylephrine on cerebral oxygenation in patients with off-pump coronary artery bypass graft surgery candidates

Protocol summary

Summary
This study aimed to compare the efficacy of administration of ephedrine and phenylephrine on cerebral oxygenation in patients undergoing off-pump coronary artery bypass graft surgery. This study is a clinical trial that was performed on 79 patients' candidate for Off-pump coronary artery bypass graft surgery. In the first group, to maintain normal blood pressure, bolus dose of 0.1 mg per kg body weight was administrated and second group, 2 micrograms per kilogram of body weight was administered phenylephrine. Invos indices of left and right and also O2Sat and MAP and HR were recorded at specified intervals.

General information

Acronym

IRCT registration information
IRCT registration number: **IRCT201204154583N5**
Registration date: **2014-05-04, 1393/02/14**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date
2014-05-04, 1393/02/14

Registrant information
Name
Hossein Moshtaghion
Name of organization / entity
Yazd University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 35 1525 0207
Email address
moshtaghion@ssu.ac.ir

Recruitment status
Recruitment complete

Funding source
Vice-chancellor for research -Shahid Sadoughi University of Medical Science

Expected recruitment start date
2012-03-01, 1390/12/11
Expected recruitment end date
2013-12-22, 1392/10/01
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the efficacy of the administration of ephedrine and phenylephrine on cerebral oxygenation in patients with off-pump coronary artery bypass graft surgery candidates

Public title
Comparison of the efficacy of the administration of ephedrine and phenylephrine on cerebral oxygenation in patients with off-pump coronary artery bypass graft surgery candidates
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: all patients undergoing for Off-pump coronary artery bypass graft surgery. exclusion criteria: history of liver and renal diseases؛ history of previous neurologic disease and CVA؛ EF<40%
Age
No age limit

Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **79**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
shahid sadoughi university of medical sciences
Street address
yazd_ bahonar SQ
City
YAZD
Postal code
89177
Approval date
2013-03-06, 1391/12/16
Ethics committee reference number
p/17/1/180770

Health conditions studied

1

Description of health condition studied
ischemic heart disease
ICD-10 code
I23.8
ICD-10 code description
Other current complications following acute myocardial infarction

Primary outcomes

1

Description
cerebral oxygenation
Timepoint
before and after recieving vasoconstrictor
Method of measurement
INVOS (Invos 5100 somanetic Corp, Tory, MI, usa)

2

Description
cerebral oxygenation
Timepoint
before, during and after CX graft
Method of measurement
INVOS (Invos 5100 somanetic Corp, Tory, MI, usa)

Secondary outcomes

1

Description
mean heart rate
Timepoint
befor induction, before and after recieving first constrictor,before and after recieving second constrictor
Method of measurement
ECG

2

Description
mean arterial blood pressure
Timepoint
befor induction, before and after recieving first constrictor,before and after recieving second constrictor
Method of measurement
sphygmometer

3

Description
mean O2 SATURATION
Timepoint
befor induction, before and after recieving first constrictor,before and after recieving second constrictor
Method of measurement
pulse oximetery

Intervention groups

1

Description
Intervention group 1: 0.1mg/kg Ephedrine bulus dose
Category
Treatment - Drugs

2

Description
Intervention group 2: 2 µ/kg Ephedrine
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Afshar hospital
Full name of responsible person
dr moshtaghion
Street address
yazd, Afshar hospital
City
yazd

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice-chancellor for research -Shaid Sadoughi University of Medical Science
Full name of responsible person
dr hassan mozaffari
Street address
yazd_ bahonar SQ_Shaid Sadoughi University of Medical Science
City
yazd
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice-chancellor for research -Shaid Sadoughi University of Medical Science
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
Shaid Sadoughi University of Medical Science
Full name of responsible person
Mohammad Hassan Abdollahi
Position
associate professor
Other areas of specialty/work
Street address
Afshar Hospital
City
yazd
Postal code
89177
Phone
+98 35 1525 5011
Fax
Email
mhabdollahi@ssu.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Shaid Sadoughi University of Medical Science
Full name of responsible person
Mohammad Hassan Abdollahi
Position
asociate professor
Other areas of specialty/work
Street address
Afshar Hospital
City
yazd
Postal code
Phone
+98 35 1525 5011
Fax
Email
mhabdollahi@ssu.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Shaid Sadoughi University of Medical Science
Full name of responsible person
Mohammad Hassan Abdollahi
Position
asociate professor
Other areas of specialty/work
Street address
Afshar Hospital
City
yazd
Postal code
Phone
+98 35 1525 5011
Fax
Email
mhabdollahi@ssu.ac.ir
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