

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 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. Invo 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 receiving 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 receiving first constrictor, before and after receiving second constrictor

Method of measurement

ECG

2**Description**

mean arterial blood pressure

Timepoint

befor induction, before and after receiving first constrictor, before and after receiving second constrictor

Method of measurement

sphygmometer

3**Description**

mean O2 SATURATION

Timepoint

befor induction, before and after receiving first constrictor, before and after receiving second constrictor

Method of measurement

pulse oximetry

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 mozaafari

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

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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