

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Effect of prophylactic intracoronary Adenosine infusion during primary percutaneous coronary intervention in Acute ST Elevation Myocardial infarction

Protocol summary

Summary

Objective: To assess the effect of prophylactic intracoronary adenosine infusion during primary percutaneous intervention in acute ST elevation myocardial infarction. Design: Randomized control trial. Setting: The eligible patients with acute ST elevation myocardial infarction who admitted to emergency room of Farshchian heart center during 2017-2018. Inclusion criteria: (a) ST elevation MI in ECG; (b) LAD and LCX lesion; (c) coronary lesion suitable for angioplasty; (d) TIMI flow 0-1. Exclusion criteria: (a) history of COPD or asthma; (b) patients who under treatment with dipyridamol; (c) Presentation with cardiogenic shock; (d) Patients who received fibrinolytic; (e) life expectancy less than 6 month; (f) stent thrombosis; (g) history of CABGs; (h) AV nodal block in first ECG; (i) TIMI flow 2-3 in angiography; (j) RCA lesion; (k) lack of patient satisfaction. Intervention: Two separated doses of 40 microgram adenosine in 10 ml normal saline 0.9% intracoronary infusion during primary PCI on LAD or LCX. Control: Two separated doses of Intracoronary 10 ml normal saline 0.9% infusion in left coronary system. Primary outcome: (a) ST elevation resolution; (b) TIMI flow; (c) level of CKMB and troponin. Secondary outcome: (a) inhospital mortality; (b) duration of hospitalization; (c) hemodynamic stability; (d) electrical stability; (e) left ventricular ejection fraction.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017062434621N1**
Registration date: **2017-08-05, 1396/05/14**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-08-05, 1396/05/14

Registrant information

Name

Azadeh Mozayani Monfared

Name of organization / entity

Hamadan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 81 3838 1731

Email address

a.mozayani@umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Vic-chancellor of Research and Technology, Hamadan University of Medical Sciences

Expected recruitment start date

2017-08-23, 1396/06/01

Expected recruitment end date

2018-04-21, 1397/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of prophylactic intracoronary Adenosine infusion during primary percutaneous coronary intervention in Acute ST Elevation Myocardial infarction

Public title

Effect of intracoronary Adenosine infusion during primary

percutaneous coronary intervention in Acute Myocardial infarction

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: (a) ST elevation MI in ECG; (b) LAD and LCX lesion; (c) coronary lesion suitable for angioplasty; (d) TIMI flow 0-1. Exclusion criteria: (a) history of COPD or asthma; (b) patients who under treatment with dipyridamol; (c) Presentation with cardiogenic shock; (d) Patients who received fibrinolytic; (e) life expectancy less than 6 month; (f) stent thrombosis; (g) history of CABGs; (h) AV nodal block in first ECG; (i) TIMI flow 2-3 in angiography; (j) RCA lesion; (k) lack of patient satisfaction.

Age

No age limit

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **104**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Local Human Subject Review Board

Street address

Hamadan University of Medical Sciences, Shaheed Fahmideh Ave, Hamadan

City

Hamadan

Postal code

6517838695

Approval date

2017-05-13, 1396/02/23

Ethics committee reference number

IR.UMSHA.REC.1396.133

Health conditions studied

1

Description of health condition studied

Acute myocardial infarction

ICD-10 code

I21

ICD-10 code description

Ischaemic heart diseases

Primary outcomes

1

Description

ST elevation resolution

Timepoint

Before and after intervention

Method of measurement

ECG

2

Description

TIMI flow

Timepoint

Before and after intervention

Method of measurement

Angioplasty

3

Description

level of CKMB and troponin

Timepoint

Before and after intervention

Method of measurement

Blood sample

Secondary outcomes

1

Description

Inhospital mortality

Timepoint

After intervention

Method of measurement

check list

2

Description

duration of hospitalization

Timepoint

After intervention

Method of measurement

check list

3

Description

hemodynamic stability

Timepoint

After intervention

Method of measurement

check list

4

Description

electrical stability

Timepoint

After intervention

Method of measurement

ECG

5

Description

Left ventricular ejection fraction

Timepoint

After intervention

Method of measurement

Echocardiography

Intervention groups

1

Description

Intervention group: Two separated doses of 40 microgram adenosine in 10 ml normal saline 0.9% intracoronary infusion during primary PCI on LAD or LCX.

Category

Prevention

2

Description

Control group: Two separated doses of Intracoronary 10 ml normal saline 0.9% infusion in left coronary system.

Category

Prevention

Recruitment centers

1

Recruitment center**Name of recruitment center**

Farshchian Heart Center

Full name of responsible person

Behshad Naghshtabrizi

Street address

Farshchian Heart Center, Shaheed Fahmideh Ave.

City

Hamadan

Sponsors / Funding sources

1

Sponsor**Name of organization / entity**

Vic-chancellor of Research and Technology, Hamadan University of Medical Sciences

Full name of responsible person

Saeid Bashirian

Street address

Vic-chancellor of Research and Technology, Hamadan University of Medical Sciences, Shaheed Fahmideh Ave.

City

Hamadan

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

Yes

Title of funding source

Vic-chancellor of Research and Technology, Hamadan University of Medical Sciences

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**

Clinical Research Development Unit of Farshchian Heart Center, Department of Cardiology

Full name of responsible person

Manijeh Sajedi

Position

Resident of Cardiology

Other areas of specialty/work**Street address**

Shaheed Fahmideh Ave., Farshchian Heart Center

City

Hamadan

Postal code

6517838695

Phone

+98 81 3838 1731

Fax**Email**

manijehsajedi@yahoo.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Department of Cardiology, School of Medicine

Full name of responsible person

Behshad Naghshtabrizi

Position

MD, Associate Professor of Cardiology

Other areas of specialty/work**Street address**

Hamadan University of Medical Sciences, Shahid
Fahmideh Ave.

City

Hamadan

Postal code**Phone**

+98 81 3838 1731

Fax**Email**

dbnaghsh@yahoo.com

Web page address**Other areas of specialty/work****Street address**

Hamadan University of Medical Sciences, Shaheed
Fahmideh Ave.

City

Hamadan

Postal code**Phone**

+98 81 3838 1731

Fax**Email**

a.mozayani@umsha.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

Person responsible for updating data**Contact****Name of organization / entity**

Department of Cardiology, School of Medicine

Full name of responsible person

Azadeh Mozayani Monfared

Position

Cardiologist