

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Aug 2026

Comparison the effects of Atorvastatin and Rosuvastatin in preventing contrast induced nephropathy in myocardial infarction patients underwent primary per-cutaneous coronary intervention

Protocol summary

Summary

preventing of adverse events helps long-term prognosis of patients with STEMI. In some studies, it is shown that statins can prevent adverse events. however, its has not established significant difference between atorvastatin and rosuvastatin. So, in this study we evaluated the effects of atorvastatin and rosuvastatin in prevention of contrast induced nephropathy. In this clinical trial, of patients referred to Imam Reza and Qaem Hospitals, 200 STEMI patients underwent PPCI and have inclusion criteria were randomly assigned in two groups. In one group, oral atorvastatin with primary dose of 80mg then 40mg twice a day, in another group, rosuvastatin with primary dose of 40mg then 20mg twice a day will administer. After data collection, it will be categorized and will be analyzed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017101236737N1**
Registration date: **2017-11-19, 1396/08/28**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-11-19, 1396/08/28

Registrant information

Name

Faeze Keihanian

Name of organization / entity

Mashhad University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Mashhad University of Medical Sciences

Expected recruitment start date

2016-08-22, 1395/06/01

Expected recruitment end date

2017-08-23, 1396/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison the effects of Atorvastatin and Rosuvastatin in preventing contrast induced nephropathy in myocardial infarction patients underwent primary per-cutaneous coronary intervention

Public title

Comparing the effects of Atorvastatin and Rosuvastatin in preventing acute kidney injury due to contrast media

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: occurrence of first episode of ST elevation Myocardial Infarction (STEMI); performing primary per-cutaneous coronary intervention for patients. Exclusion criteria: patients under-dialysis; acute kidney injury before angiography; cardiogenic shock; consumption of drugs like N-acetyl cysteine, vitamin C, consumption of venous contrast for other cause, manitol,

diuretics, Theophylline and Dopamin in recent two weeks before PCI; having intra-aortic balloon pump; patients with previous cardiac surgery; patients who were candidate for CABG after angioplasty; patients who received G2b3a drugs during PPCI

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 200

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Triple blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethical Committee of Mashhad University of Medical Sciences

Street address

Medical Faculty, University Complex, Azadi Square, Mashhad, Khorasan Razavi

City

Mashhad

Postal code**Approval date**

2017-01-25, 1395/11/06

Ethics committee reference number

IR.MUMS.fm.REC.1395.90

Health conditions studied**1****Description of health condition studied**

Contrast Induced Nephropathy

ICD-10 code

Y57.5

ICD-10 code description

Other and unspecified drugs and medicament

Primary outcomes**1****Description**

Level of serum creatinine

Timepoint

24 hours after intervention and 72 hours after intervention

Method of measurement

mg/ deciliter

Secondary outcomes**1****Description**

glomerular filtration rate

Timepoint

24hours after intervention and 72hours after intervention

Method of measurement

ml/min/1.73 m2

Intervention groups**1****Description**

oral atorvastatin 80mg before PPCI then 40mg bid after PPCI

Category

Treatment - Drugs

2**Description**

Rosuvastatin 40mg before PPCI then 20mg bid after PPCI

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Imam Reza Hospital

Full name of responsible person

Ali Eshraghi

Street address

Cardiovascular Department, Imam Reza Hospital, Imam Reza Square

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2**Recruitment center****Name of recruitment center**

Ghaem Hospital

Full name of responsible person

Ramin Khameneh Bagheri

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Web page address**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice chancellor for research, Mashhad University of Medical Sciences

Full name of responsible person

Mohsen Tafaghodi

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Vice chancellor for research, Mashhad University of Medical Sciences, Beside Huveizeh Cinema, Daneshgah Street, Mashhad

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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, Mashhad 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**

Mashhad University of Medical Sciences

Full name of responsible person

Hasan Amirsoleimani

Position

Cardiovascular resident

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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