Clinical Trial Protocol
Iranian Registry of Clinical Trials

04 Oct 2026

Comparison the effects of Atorvastatin and Rosuvastatin in preventing contrast induced nephropathy in myocarial 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
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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 myocarial 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
glumerolar 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

City
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2

Recruitment center

Name of recruitment center
Ghaem Hospital

Full name of responsible person
Ramin Khameneh Bagheri

Street address
Cardiovascular Department, Qaem Hospital, Shariati Square
City
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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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Mashhad
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

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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