

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of ticagrelor with clopidogrel on myocardial blood flow and prognosis of patients with acute myocardial infarction undergoing primary percutaneous coronary intervention

Protocol summary

Study aim

Comparison of Ticagrelor versus Clopidogrel in patients with acute myocardial infarction undergoing primary Percutaneous Coronary Intervention

Design

A clinical trial study with a control group with a parallel and double-blind randomized group on 140 patients. Block randomization method will be used for randomization.

Settings and conduct

A total of 140 patients with STEMI referred to Boali Sina Hospital, Qazvin, will be randomly divided into two treatment groups of 70 patients. The intervention group and control group will receive ticagrelor and clopidogrel, respectively. Patients in both groups will follow up to 3-month period after intervention.

Participants/Inclusion and exclusion criteria

Inclusion criteria: more than 18 years old patients with STEMI Exclusion criteria: multivessel or left main disease, stent thrombosis, cardiogenic shock, history of CVA or MI, contraindication of adenosine, TIMI FLOW less than 3

Intervention groups

Intervention group: prescribed 180 mg Ticagrelor Control group: prescribed 600 mg clopidogrel

Main outcome variables

Thrombosis, Duration of hospitalization, Death, Bleeding Time

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210718051935N1**

Registration date: **2021-08-16, 1400/05/25**

Registration timing: **registered_while_recruiting**

Last update: **2021-08-16, 1400/05/25**

Update count: **0**

Registration date

2021-08-16, 1400/05/25

Registrant information

Name

Fatemeh Rajabi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 28 3336 1733

Email address

f_rajabi_r@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-08-11, 1400/05/20

Expected recruitment end date

2022-03-23, 1401/01/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of ticagrelor with clopidogrel on myocardial blood flow and prognosis of patients with acute myocardial infarction undergoing primary percutaneous coronary intervention

Public title

Comparison of Ticagrelor versus Clopidogrel in patients with acute myocardial infarction

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age > 18 years Presented with ST-Elevation Myocardial Infarction (STEMI) Suitable infarcted related artery for angioplasty Patient satisfaction

Exclusion criteria:

More than single vessel involvement in angiography Unprotected left main lesion in angiography Stent thrombosis Presentation with cardiogenic shock History of CVA History of MI Contraindication of adenosine High degree AV block TIMI flow < 3 at the end of the angioplasty Patient dissatisfaction

Age

From 18 years old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: 140

Randomization (investigator's opinion)

Randomized

Randomization description

Block randomization method with block size of 4 will be done

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Qazvin University of Medical Sciences

Street address

Dept of research Qazvin University of Medical Sciences, Shahid Beheshti Ave

City

Qazvin

Province

Qazvin

Postal code

3415613911

Approval date

2021-07-18, 1400/04/27

Ethics committee reference number

IR.QUMS.REC.1400.174

Health conditions studied

1

Description of health condition studied

Acute myocardial infarction

ICD-10 code

I21

ICD-10 code description

ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction

Primary outcomes

1

Description

Thrombosis

Timepoint

Before intervention and 3 months after intervention

Method of measurement

Clinical signs and laboratory tests

Secondary outcomes

1

Description

Duration of hospitalization

Timepoint

3 months after the intervention

Method of measurement

Use of patient records

2

Description

Death

Timepoint

3 months after the intervention

Method of measurement

Use of patient records

3

Description

Bleeding Time

Timepoint

3 months after the intervention

Method of measurement

Use of patient records

Intervention groups

1

Description

Intervention group: Ticagllor group: for patients will be prescribed 180 mg of ticaglor loading dose and then 75

mg ticaglor twice a day as maintenance dose for 3 months.

Category

Treatment - Drugs

2

Description

Control group: Clopidogrel group: patients will receive 600 mg of clopidogrel as a loading dose and then clopidogrel 75 mg daily will be prescribed for 3 months.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Boali Sina Hospital

Full name of responsible person

Fatemah Rajabi

Street address

Boali Sina Hospital, Boali Sina Ave

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Email

F_rajabi_r@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Mohammad Mahdi Emamjomeh

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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

Qazvin University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Fatemah Rajabi

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Cardiology

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Person responsible for updating data

Contact

Name of organization / entity

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Full name of responsible person

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Patient demographic data and the primary and secondary endpoint data

When the data will become available and for how long

No limitation

To whom data/document is available

All persons

Under which criteria data/document could be used

No limitation

From where data/document is obtainable

Connect with email:F_rajabi_r@yahoo.com or research center of Boali Sina Hospital

What processes are involved for a request to access data/document

After receiving the request for accessibility to data,it was reviewing with research expert and then referred to the master of research

Comments