

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

Comparing the prophylaxis effects of Metoprolol and Magnesium on prevention of atrial fibrillation after CABG (coronary artery bypass graft)

Protocol summary

Summary

The aim of this study is comparing the prophylaxis effects of Metoprolol and Magnesium on prevention of atrial fibrillation after CABG (coronary artery bypass graft). A study is double-blind randomized clinical trial. 195 patients, randomized into 3 groups Metoprolol, Magnesium and a combination of the Metoprolol and Magnesium. In the first group inject 5mg Metoprolol, in second group inject 1.5 grams Magnesium and third group inject combination 2.5 mg Metoprolol and 1 grams Magnesium. Inclusion criteria: All patients undergoing non-emergency CABG; all patients in ASA class 3 and 4; all patients during surgery is less than 6 hours; all patients without previous history of arrhythmia and atrial fibrillation; patients without history the anti-arrhythmia. Exclusion criteria: All patients during surgery have more than 6 hours; patients undergoing emergency CABG; patients who are undergoing CABG addition valve replacement surgery; patients with a history of previous arrhythmia and AF had before surgery; patients who have a history of taking drugs arrhythmia; patients who have a history of allergy to Magnesium and Metoprolol. Atrial fibrillation record researcher prescript Amiodarone (300 mg) for treatment. vital signs in and after operation and atrial fibrillation after operation compare in 3 groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016031520258N5**
Registration date: **2016-04-17, 1395/01/29**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2016-04-17, 1395/01/29

Registrant information

Name

Fariba Farokhi

Name of organization / entity

Arak University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Arak University of Medical Sciences

Expected recruitment start date

2016-04-20, 1395/02/01

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

Comparing the prophylaxis effects of Metoprolol and Magnesium on prevention of atrial fibrillation after CABG (coronary artery bypass graft)

Public title

Comparing the prophylaxis effects of Metoprolol and Magnesium on prevention of Atrial fibrillation after CABG (coronary artery bypass graft)

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: All patients undergoing non-emergency CABG; all patients in ASA class 3 and 4; all patients

during surgery is less than 6 hours; all patients without previous history of arrhythmia and atrial fibrillation ; patients without history the anti-arrhythmia Exclusion criteria: All patients during surgery have more than 6 hours; patients undergoing emergency CABG; patients who are undergoing CABG addition valve replacement surgery; patients with a history of previous arrhythmia and AF had before surgery; patients who have a history of taking drugs arrhythmia; patients who have a history of allergy to Magnesium and Metoprolol

Age

No age limit

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **195**

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**

Ethics committee of Arak University of Medical Sciences

Street address

Ethics committee, Research center, Payambar Azam complex, Basij squire ,Sardasht,Arak

City

Arak

Postal code

848176941

Approval date

2016-02-15, 1394/11/26

Ethics committee reference number

1394.296.IR.ARAKMU.REC

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

atrial fibrillation

ICD-10 code

T82.8

ICD-10 code description

Other specified complications of cardiac and vascular prosthetic devices, implants and grafts

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

atrial fibrillation

Timepoint

in operation and after operation until 3 day

Method of measurement

Electrocardiography

2**Description**

pulse of heart

Timepoint

in operation and after operation until 3 day

Method of measurement

count

3**Description**

respiratory

Timepoint

in operation and after operation until 3 day

Method of measurement

observation

4**Description**

Temperature

Timepoint

in operation and after operation until 3 day

Method of measurement

Thermometer

5**Description**

blood pressure

Timepoint

in operation and after operation until 3 day

Method of measurement

Barometer

Secondary outcomes

empty

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

In the first group inject 5mg Metoprolol

Category

Treatment - Drugs

2**Description**

In second group inject 1.5 grams Magnesium

Category

Treatment - Drugs

3**Description**

Third group inject combination 2.5 mg Metoprolol and 1 grams Magnesium

Category

Treatment - Drugs

Recruitment centers1**Recruitment center****Name of recruitment center**

Amiralmomenin Hospital

Full name of responsible person

Azade Hosseini

Street address

Sardasht, Basij square, Amiralmomenin hospital

City

Arak

Sponsors / Funding sources1**Sponsor****Name of organization / entity**

Vice chancellor for research, Arak University of Medical Sciences

Full name of responsible person

Dr Mohammad Rafiee

Street address

Vice chancellor for research, Payambar Azam Complex, Basij square, Sardasht, Arak

City

Arak

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, Arak 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**

Arak University of Medical Sciences

Full name of responsible person

Azade Hosseini

Position

student of medicine

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

Arak University of Medical Sciences

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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