

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jul 2026

### Evaluation of the Effect of Mg Sulfate in Post Operative Analgesia after Open Heart Surgery in coronary Ischemic Heart Disease

#### Protocol summary

##### Summary

Aim of this study was to evaluate the effect of Mg Sulfate in post operative analgesia after open heart surgery. Patients undergoing open heart surgery and have coronary disease or valve deformity for the first time. These patients disconnected from evaluation : those who have atrioventricular block or neurologic abnormality, severe obesity, pregnancy and organ abnormalities for example in kidney and liver, ... The research contains 44 patients undergoing open heart surgery. We divided them into 2 groups (22 patients) in the first group which we infused magnesium sulfate and in the second group we infused normal saline. Induction of anesthesia with midazolam 0.1 mg/kg and sufentanil 1 microgram/kg and propofol 1.5 mg/kg. In the preoperative phase monitoring made were 5 lead ECG, mean arterial pressure, central vein pressure, core temperature, oxygen blood saturation and CO<sub>2</sub> end tidal volume. Evaluating the pain score (graphic VAS). In each two groups of evaluation after 30 minutes we evaluated these parameters pain score, difficult extubation, period of time staying in intensive care unit and nausea and vomiting.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201202159019N1**  
Registration date: **2012-06-06, 1391/03/17**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2012-06-06, 1391/03/17

##### Registrant information

**Name**

Ehsan Baghbani Jam

##### Name of organization / entity

Hamadan University of medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 9808118250851

##### Email address

e.baghbani@umsha.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Hamadan University of Medical Sciences

##### Expected recruitment start date

2012-03-20, 1391/01/01

##### Expected recruitment end date

2013-03-21, 1392/01/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Evaluation of the Effect of Mg Sulfate in Post Operative Analgesia after Open Heart Surgery in coronary Ischemic Heart Disease

##### Public title

Effect of Magnesium Sulfate in Heart Open Surgery

##### Purpose

Prevention

##### Inclusion/Exclusion criteria

Inclusion criteria: Patients undergoing open heart surgery ; those who have coronary artery disease or valve deformity for the first time. Exclusion criteria : These patients disconnected from evaluation : those who have atrioventricular block ; neurologic abnormality; severe obesity; pregnancy ; organ abnormalities for example in

kidney and liver, ...

**Age**

From **18 years** old to **80 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **44**

**Randomization (investigator's opinion)**

Randomized

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

Double blinded

**Blinding description****Placebo**

Used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

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

Hamadan university of medical sciences

**Street address**

shahid fahmideh st, ministry of research

**City**

Hamadan

**Postal code****Approval date**

2012-01-21, 1390/11/01

**Ethics committee reference number**

2752/16/35/د/پ

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

Ischemic Heart Disease

**ICD-10 code**

I20-I25

**ICD-10 code description**

Ischaemic heart diseases

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

Pain

**Timepoint**

after infusion of Mg after half hour

**Method of measurement**

graphic VAS system

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

nausa and vomiting

**Timepoint**

after infusion Mg after half hour

**Method of measurement**

inspection and clinical evaluation

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

Control group : Normal saline 150 ml intravenous line per 30 minutes

**Category**

Prevention

**2****Description**

Case group : Infusion of Magnesium sulfate 50 mg/kg in intravenous line per 30 minutes

**Category**

Prevention

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

Ekbatan Hospital

**Full name of responsible person**

Ehsan Baghbani Jam

**Street address****City**

Hamadan

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Hamadan University of Medical Sciences

**Full name of responsible person**

Heidar Tavilani

**Street address**

Minsitry of Research

**City**

Hamadan

**Grant name**

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

Yes

**Title of funding source**

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**

Hamadan University of Medical Sciences

**Full name of responsible person**

Ehsan Baghbani Jam

**Position**

Resident of Anesthesiology

**Other areas of specialty/work**

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## Person responsible for scientific inquiries

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Maryam Davoudi

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## Person responsible for updating data

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**Other areas of specialty/work**

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**City**

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**Postal code**

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+98 81 1825 1245

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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*