

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

06 Jul 2026

### Effects of Magnesium Sulfate on postoperative analgesia in inguinal hernia repair

#### Protocol summary

##### Summary

In this randomized, double blind trial, we evaluate the effects of Magnesium sulfate (MgSO<sub>4</sub>) administration on postoperative analgesia & opioid requirement in patient undergoing inguinal hernia repairment operation. In this study thirty -two ASA 1&2 patients undergoing inguinal surgery in Imam Khomeini Hospital at Sari were divided randomly in two equal intervention & control groups. Patients with renal disease; liver disease; heart block; hypertension; psychosomatic disorders; myopathy; diabetes; history of drug & alcohol abuse; recent use of antidepressants& anti-psychotic drugs; calcium channel blocking drugs & thyroid disorders will be Excluded from the study. In intervention group patients receive Magnesium Sulfate 50 mg/kg/h IV, 15 minutes before until one hour after surgery whereas patients in control group received same volume of isotonic sodium chloride over the same time. Pain and requirement for analgesia will be recorded at immediately after surgery & 2; 6; 12; & 24 hours after surgery. Data are collected & will be analyzed with SPSS 16.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT138809282883N1**

Registration date: **2012-03-03, 1390/12/13**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2012-03-03, 1390/12/13

##### Registrant information

###### Name

Mohammadreza Habibi

##### Name of organization / entity

Mazandarn University of Medical Sciences and Health Services

##### Country

Iran (Islamic Republic of)

##### Phone

+98 15 1222 3023

##### Email address

mhabibi@mazums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Mazandaran University of Medical Sciences

##### Expected recruitment start date

2010-04-21, 1389/02/01

##### Expected recruitment end date

2010-08-20, 1389/05/29

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effects of Magnesium Sulfate on postoperative analgesia in inguinal hernia repair

##### Public title

Effects of Magnesium Sulfate on postoperative analgesia in inguinal hernia repair

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria :Adults scheduled for inguinal hernia operation ; ASA class I and II; between 15& 75 years old .  
Exclusion criteria : renal disease; liver disease; heart block; hypertension; psychosomatic disorders; myopathy; diabetes; history of drug & alcohol abuse; recent use of antidepressants& anti-psychotic drugs;

calcium channel blocking drugs & thyroid disorders.

### Age

From **15 years** old to **75 years** old

### Gender

Both

### Phase

2-3

### Groups that have been masked

*No information*

### Sample size

Target sample size: **32**

### 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

mazandaran university of medical sciences

##### Street address

jooybar ave

##### City

sari

##### Postal code

#### Approval date

2010-07-07, 1389/04/16

#### Ethics committee reference number

8946

## Health conditions studied

### 1

#### Description of health condition studied

inguinal hernia

#### ICD-10 code

k40

#### ICD-10 code description

Inguinal hernia

## Primary outcomes

### 1

#### Description

pain

### Timepoint

Immediately after surgery & 2;6;12 & 24 hour after surgery

### Method of measurement

VAS score

## Secondary outcomes

### 1

#### Description

amount of opioid

#### Timepoint

Immediately after surgery & 2;6;12 & 24 hour after surgery

#### Method of measurement

A nurse submitted the data

## Intervention groups

### 1

#### Description

The intervention group receive Magnesium Sulfate 50 mg/kg/h IV, 15 minutes before until one hour after surgery.

#### Category

Treatment - Drugs

### 2

#### Description

The control group received same volume of isotonic sodium chloride over the same time.

#### Category

Placebo

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Imam khomeini Hospital

##### Full name of responsible person

Mohammad Reza Habibi

##### Street address

Amir BLV.

##### City

Sari

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Mazandaran University of Medical Sciences and Health Services

##### Full name of responsible person

Ahmad Ali Enayati

**Street address**

Deputy of Research, Moalem sq.

**City**

Sari

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

Yes

**Title of funding source**

Mazandaran University of Medical Sciences and Health Services

**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**

Mazandaran University of Medical Sciences

**Full name of responsible person**

Mohammad Reza Habibi

**Position**

Assistant Professor; Fellowship of Cadiac Anesthesia

**Other areas of specialty/work****Street address**

Mazandaran Heart Center; fattermeh alzahra Hos. Sari

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MHabibi@mazums.ac.ir

**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**

Mazandaran University of Medical Sciences

**Full name of responsible person**

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**City**

Sari

**Postal code****Phone****Fax****Email**

mohammadreza.habibi@gmail.com

**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*