

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 (MgSO₄) 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**

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Full name of responsible person

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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