

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

Evaluation the effect of intraoperative administration of magnesium sulfate on post operative pain of patient undergoing general anesthesia for inguinal hernioraphy

Protocol summary

Summary

Objective: comparison of postoperative pain score in administration of magnesium sulfate with normal saline in patients undergoing general anesthesia for inguinal hernioraphy Design: Double blind clinical trial Setting: Patients were divided into two groups randomly: A(Magnesium sulphate) and B(Isotonic saline). Anesthesia was induced in both groups equally using Fentanyl 2 microgramms per kilogram, Midazolam 0.03 milligramms per kilogram, Sodium thiopental 5 milligramms per kilogram and Atracorium 0.5 milligramms per kilogram and was maintained with Propofol infusion (50 to 150 microgram per kilogram per minute). Morphine 0.1 milligramms per kilogram was administered in both groups half hour before the end of surgery. Inclusion criteria: patients with ASA 1 or 2 ; the patients without history of drug abuse ; without sensitivity to magnesium , opioids and analgesics ; any hepatic, renal, cardiovascular, neuromascular or neurological disorder ; not to use calcium channel blockers Exclusion criteria: patients with preoperative hemodynamic instability ; preoperative respiratory distress ; preoperative nausea and vomiting or any important adverse effects; patients with magnesium infusion time less than one hour and more than 3 hours. Intervention: Group A (Magnesium) received magnesium sulphate 40 miligram per kilogram and then 15 miligram per kilogram per hour infusion during the operation until the 20 min after the end of surgery and B (Isotonic saline) received the same volume of isotonic saline over the same period. Main outcomes: Pain score by VAS and Mepiridine consumption at 30 min, 2, 4, 6, 12 and 24 hours after discontinue the infusion, any adverse effects were evaluated.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012102811294N1**

Registration date: **2013-01-16, 1391/10/27**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-01-16, 1391/10/27

Registrant information

Name

Zeinab Alizadeh

Name of organization / entity

Ahvaz Jondishapour University of Medical Science

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of Ahvaz Jondishapour University of Medical Science

Expected recruitment start date

2012-08-22, 1391/06/01

Expected recruitment end date

2012-10-22, 1391/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation the effect of intraoperative administration of magnesium sulfate on post operative pain of patient undergoing general anesthesia for inguinal hernioraphy

Public title

Evaluation the effect of intraoperative administration of magnesium sulfate on post operative pain of patients undergoing general anesthesia for inguinal hernioraphy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients with ASA 1 or 2 ; the patients without history of drug abuse ; without sensitivity to magnesium , opioids and analgesics ; any hepatic, renal, cardiovascular, neuromascular or neurological disorder ; not to use calcium channel blockers Exclusion criteria: patients with preoperative hemodynamic instability ; preoperative respiratory distress; preoperative nausea and vomiting or any important adverse effects ; patients with magnesium infusion time less than one hour and more than 3 hours.

Age

From **16 years** old to **60 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **30**

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**

Ethics committee of Ahvaz Jondishapour University of Medical Sciences

Street address

Jondishapour University Center, Golestan Boulevard

City

Ahvaz

Postal code**Approval date**

2012-03-03, 1390/12/13

Ethics committee reference number

ETH-398

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

Postoperative Pain

ICD-10 code

R52.0

ICD-10 code description

Acute pain

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

pain score

Timepoint

30 min , 2 hours, 6 hours, 12 hours, 24 hours after surgery

Method of measurement

Visual analogue scale

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

meperidine consumption

Timepoint

in 24 hours after surgery

Method of measurement

milligramms

2**Description**

Incidence of adverse effects

Timepoint

In 24 hours after surgery

Method of measurement

Asking from patients

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

infusion of magnesium sulphate 40 miligram per kilogram before induction and then 15 miligram per kilogram per hour infusion during the operation until the 20 min after the end of surgery

Category

Treatment - Drugs

2

Description

Infusion of isotonic saline 100 millilitre before induction and then 100 millilitre per hour infusion during the operation until the 20 min after the end of surgery

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Ahvaz Emam Khomeini General Operation Room

Full name of responsible person

Narges Asadi

Street address

Emam Khomeini Hospital, 20 meter Street

City

Ahvaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research of Ahvaz Jondishapour University of Medical Sciences

Full name of responsible person

Feghi Mostafa

Street address

Vice chancellor for research, University center, Golestan Boulevard

City

Ahvaz

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 of Ahvaz Jondishapour 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

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Full name of responsible person

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Position

Resident of Anesthesiology

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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