Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 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

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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 mililitre before induction and then 100 mililitre 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
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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