

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

Evaluation of I.V magnesium sulfate effect on post-operative pain of cesarean section after induction of spinal anesthesia

Protocol summary

Summary

We are evaluating the effect of I.V infusion of magnesium sulfate during spinal anesthesia on post-operative analgesia and postoperative analgesic requirement. This is a randomized, double blind, prospective study. Exclusion criteria are allergic reaction to study drug, cardiovascular, hepatic or renal dysfunction, neuromuscular diseases, opioid or analgesic abuse, prior treatment with calcium channel blockers. 68 ASA 1 patients, undergoing elective cesarean section under spinal anesthesia, are included. 15 min before induction of spinal anesthesia the magnesium group receive magnesium sulfate 50mg/kg for 15 min and then 10 mg/kg/h by continuous I.V infusion until the end of surgery. The saline group receive the same volume of isotonic saline over the same period. Post-operative pain and analgesic requirement will be evaluated immediately after surgery and at 0.5, 1, 2, 4, 8 and 24 h after surgery.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201111045731N2**

Registration date: **2011-12-09, 1390/09/18**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-12-09, 1390/09/18

Registrant information

Name

Reza Tahmasebi

Name of organization / entity

Hamedan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Hamedan University Of Medical Sciences

Expected recruitment start date

2011-08-23, 1390/06/01

Expected recruitment end date

2011-12-22, 1390/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of I.V magnesium sulfate effect on post-operative pain of cesarean section after induction of spinal anesthesia

Public title

Effect of magnesium sulfate on post-operative pain of cesarean section

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 1- ASA 1 women; 2- undergoing elective caesarian section. Exclusion criteria: 1-allergic reaction to study drug; 2- cardiovascular, hepatic or renal dysfunction; 3- neuromuscular diseases; 4- opioid or analgesic abuse; 5- prior treatment with calcium channel blockers.

Age

From **15 years** old to **50 years** old

Gender

Female

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: 68

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
Hamaedan University of Medical Sciences

Street address
Mahdiye street

City
Hamaedan

Postal code

Approval date
2010-07-14, 1389/04/23

Ethics committee reference number
57205/9/35/16/پ

Health conditions studied

1

Description of health condition studied
pain

ICD-10 code
R52

ICD-10 code description
Pain, not elsewhere classified

Primary outcomes

1

Description
pain score

Timepoint
immediately after surgery and at 0.5, 1, 2, 4, 8 and 24 h after surgery

Method of measurement

with VAS score

Secondary outcomes

1

Description
heart rate

Timepoint
immediately after surgery and 0.5, 1, 2, 4, 8 and 24 h after surgery

Method of measurement
pulse per minute

2

Description
shivering, nausea and vomiting

Timepoint
immediately after surgery and 0.5, 1, 2, 4, 8 and 24 h after surgery

Method of measurement
The patient's complaint

3

Description
blood pressure

Timepoint
bloommediately after surgery and 0.5, 1, 2, 4, 8 and 24 h after surgery

Method of measurement
manometer

Intervention groups

1

Description
15 min before induction of spinal anesthesia the magnesium group receive magnesium sulfate 50mg/kg for 15 min and then 10 mg/kg/h by continuous I.V infusion until the end of surgery.

Category
Treatment - Drugs

2

Description
The saline group receives the same volume of isotonic saline over the same period.

Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Hamedan Fatemieh Hospital

Full name of responsible person

Dr Maryam Davoodi
Street address
Kermanshah avenue
City
Hamedan

Postal code
Phone
+98 81 1838 6562
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr Ali Galeeiha
Street address
Mahdiye street
City
Hamedan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Hamedan 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
Hamedan university of medical sciences
Full name of responsible person
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Position
Resident of Anesthesiology
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Person responsible for scientific inquiries

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Person responsible for updating data

Contact

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