

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Aug 2026

Comparison of intravenous lidocaine and intravenous magnesium sulfate in reduction of myoclonic movements following etomidate in orthopedic surgery

Protocol summary

Summary

The aim of this study: Comparison of intravenous lidocaine and intravenous magnesium sulfate in reduction of myoclonic movements following etomidate in orthopedic surgery. Study design: After explaining the purpose of the study and obtaining the informed consent, patients will be allocated into A, B and C groups. Randomization will be performed using random block sizes of 3. The study is single-center, double blind and phase 3 trial and patients and physician will be blind about the type of injection drug. Inclusion criteria: patients who candidate for orthopedic surgery. Exclusion criteria: ASA anesthesia risk class 3 and more than; emergency surgery; history of opium, anticonvulsant and sedative drugs; patients with Parkinson; contraindication for lidocaine and magnesium sulfate. Sample size: 117 patients will participate in the study with 39 patients in each group. Study groups: Intervention group: lidocaine 2% 1 mg/kg and magnesium sulfate 5 mg/kg. Control group: Distilled water 5 cc. Primary outcome: Reduction of myoclonic movements

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017062134674N1**
Registration date: **2017-08-13, 1396/05/22**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-08-13, 1396/05/22

Registrant information

Name

Akram Asadpour

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Islamic Azad University of Shahrood

Expected recruitment start date

2017-07-23, 1396/05/01

Expected recruitment end date

2018-07-23, 1397/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of intravenous lidocaine and intravenous magnesium sulfate in reduction of myoclonic movements following etomidate in orthopedic surgery

Public title

Effect of intravenous lidocaine and intravenous magnesium sulfate in reduction of myoclonic movements

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients who candidate for orthopedic surgery Exclusion criteria: ASA anesthesia risk class 3

and higher; emergency surgery; history of opium, anticonvulsant and sedative drugs; patients with Parkinson; contraindication for lidocaine and magnesium sulfate

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **117**

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 Shahroud University of Medical Sciences

Street address

Shahroud University of Medical Sciences, Hafte-Tir Square

City

Shahroud

Postal code

3613773955

Approval date

2015-09-29, 1394/07/07

Ethics committee reference number

IRSHMUREC.1394.114

Health conditions studied

1

Description of health condition studied

Myoclonus

ICD-10 code

G25.3

ICD-10 code description

Drug-induced myoclonus

Primary outcomes

1

Description

Myoclonus

Timepoint

Within 90 seconds after injection of the main drug for induction of anesthesia

Method of measurement

Observation

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: magnesium sulfate 5 mg/kg single dose

Category

Treatment - Drugs

2

Description

Intervention group 2: lidocaine 2% 1 mg/kg single dose

Category

Treatment - Drugs

3

Description

Control group: Distilled water 5 cc

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Hossein hospital

Full name of responsible person

Dr Akram Asad poor

Street address

Imam Hossein Hospital, End of Ayatollah Towhidi avenue, Shahroud

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Shahroud University of

Medical Sciences

Full name of responsible person

Mohammad Hasan Emamian

Street address

Shahroud University of Medical Sciences, 7 Tir square,
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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, Shahroud 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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Position

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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