

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The Effect of Lidocaine, Magnesium Sulfate and Ketamine on the Pain of Propofol Intravenous Injection

#### Protocol summary

##### Summary

The current protocol was aimed to compare effects of three drugs such as Lidocaine, Magnesium sulfate and Ketamine on the pain of Propofol intravenous injection. Patients needed anesthesia divided into four groups including Lidocaine (L), Ketamine (K), Magnesium sulfate (MS) and Normal saline (NS). Eighty patients conducted in this survey. This study was double blind that anesthesiologist who was unaware of the contents of the syringe. Also, the specialist assessing pain was not aware of patients assigned to groups. Patients were allocated in to 4 groups using block allocation method. All patients were provided by Normal Saline prior to induction and venipuncture was also done from upper limb distal using vein catheter no 18 and anesthesia methods were similar for all groups. Groups L, K, MS, and NS received respectively 40 mg Lidocaine, 25 mg Ketamine, 1 gr Magnesium Sulfate, and 5 ml Normal Saline. Inclusion criteria were as follow: 1) people aged 18-65 years that categorized into class 1 and 2 based on America Society of Anesthesiologists (ASA. Exclusion criteria were considered as: 1) having allergies or symptoms of heart disease. To measure pain, Verbal Rating Scale was used (0= no pain, 1= low pain, 2= moderate, and 3= severe pain).

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016051410340N10**  
Registration date: **2016-07-01, 1395/04/11**  
Registration timing: **na**

Last update:

Update count: **0**

##### Registration date

2016-07-01, 1395/04/11

#### Registrant information

##### Name

Mohammad Aryaie

##### Name of organization / entity

Golestan University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 911 277 1798

##### Email address

aryaie@goums.ac.ir

#### Recruitment status

##### Not enough for processing

#### Funding source

Golestan University of Medical Science

#### Expected recruitment start date

2015-03-20, 1393/12/29

#### Expected recruitment end date

2006-03-20, 1384/12/29

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

The Effect of Lidocaine, Magnesium Sulfate and Ketamine on the Pain of Propofol Intravenous Injection

#### Public title

Pain of Propofol Intravenous Injection

#### Purpose

Treatment

#### Inclusion/Exclusion criteria

Inclusion criteria: people aged 18-65 years that categorized into class 1 and 2 based on America Society of Anesthesiologists (ASA); hypertension between 90 and 140 until 24 hours before surgery; lack of neurological disorders, kidney and liver failure; lack of drug allergy;

no history of allergy to eggs or anaphylaxis. Exclusion criteria were considered as: having allergies or symptoms of heart disease and arrhythmias; saturation drops below 90%; operation duration more than 3 hours.

#### Age

From **18 years** old to **65 years** old

#### Gender

Both

#### Phase

N/A

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **80**

#### 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

Ethic Committee of Golestan University of Medical Science

##### Street address

4 Kilometer of Gorgan-sari Road, Falsafi educational campus, Vice Chancellor of Technology and Information, Gorgan

##### City

Gorgan

##### Postal code

##### Approval date

2010-08-20, 1389/05/29

##### Ethics committee reference number

3107869312242

## Health conditions studied

### 1

#### Description of health condition studied

pain

#### ICD-10 code

M79.6

#### ICD-10 code description

Pain in limb

## Primary outcomes

### 1

#### Description

Pain

#### Timepoint

After intervention

#### Method of measurement

Verbal Rating Scale

## Secondary outcomes

### 1

#### Description

Hemodynamic Change

#### Timepoint

Before Intervention, 1,3 and 5 minutes after intervention

#### Method of measurement

Sphygmomanometer, Puls oximeter

## Intervention groups

### 1

#### Description

40 mg Lidocaine was intravenously administered as a premedication before propofol injection

#### Category

Prevention

### 2

#### Description

25 mg Ketamine was intravenously administered as a premedication before propofol injection

#### Category

Prevention

### 3

#### Description

1 gr Magnesium sulfate was intravenously administered as a premedication before propofol injection

#### Category

Prevention

### 4

#### Description

5 ml Normal saline was intravenously administered as a premedication before propofol injection

#### Category

Prevention

## Recruitment centers

### 1

#### Recruitment center

Name of recruitment center

5 Azar Hospital

**Full name of responsible person**

Peyman Asghari

**Street address**

5 Azar Hospital, 5 Azar Street, Gorgan City, Golestan Province

**City**

Gorgan

**Fax**

**Email**

homeira\_khoddam@yahoo.com

**Web page address**

**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**

Golestan University of Medical Sciences

**Full name of responsible person**

Peiman Asghari

**Position**

Anesthesia Specialist

**Other areas of specialty/work**

**Street address**

4 Kilometer of Gorgan-sari Road, Falsafi educational campus, Vice Chancellor of Technology and Information, Gorgan

**City**

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**Postal code**

**Phone**

+98 17 3242 4256

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paymanasghari5@gmail.com

**Web page address**

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Golestan University of Medical Science

**Full name of responsible person**

Homeira Khodam

**Street address**

4 Kilometer of Gorgan-sari Road, Falsafi educational campus, Vice Chancellor of Technology and Information, Gorgan

**City**

Gorgan

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Golestan University of Medical Science

**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**

Golestan University of Medical Science

**Full name of responsible person**

Homeira Khodam

**Position**

Research and Technolgy Managment

**Other areas of specialty/work**

**Street address**

4 Kilometer of Gorgan-sari Road, Falsafi educational campus, Vice Chancellor of Technology and Information, Gorgan

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**Postal code**

**Phone**

+98 17 3242 4377

**Person responsible for updating data**

**Contact**

**Name of organization / entity**

Golestan University of Medical Sciences

**Full name of responsible person**

Mohamma Aryaied

**Position**

MSc in Epidemiology

**Other areas of specialty/work**

**Street address**

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aryaie@goums.ac.ir

**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*