Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Investigating the analgesic effect of magnesium sulfate during postoperative period in patients underwent knee arthroscopic partial meniscectomy

Protocol summary

Summary

This study aims to investigate the analgesic effect of magnesium sulfate during postoperative period in patients underwent knee arthroscopic partial meniscectomy. Inclusion criteria are male or female patients (18 to 45 years old) candidate of knee arthroscopic partial meniscectomy based on the MRI imaging. Exclusion criteria are elevated levels of serum magnesium (> 1mmol/l), known allergies to pharmaceutical agents using in the study, major dysfunction of liver and kidney and cardiovascular system, specific atrioventricular block, obesity and previous treatment with opoidal drugs, rheumatic diseases, ligamental damage of the knee and sever osteoarthritis of the knee. Ninty four patients are randomly divided into two groups (each 47 cases): one control group and one intervention groups. The intervention group receives 20 cc of normal saline containing 1 gr magnesium sulfate 10% after surgery and before opening the tourniquet by the surgeon and with using arthroscopy. The control group receives only 20 cc of normal saline. The primary outcome is assessment of pain based on the visual analogue score (VAS) after surgery in 5, 60, 120 and 240 min after entering the recovery room by researcher who is not aware of grouping.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017012232117N1**
Registration date: **2017-04-15, 1396/01/26**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2017-04-15, 1396/01/26

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapur University of Medical ściences

Expected recruitment start date

2017-02-02, 1395/11/14

Expected recruitment end date

2017-05-02, 1396/02/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the analgesic effect of magnesium sulfate during postoperative period in patients underwent knee arthroscopic partial meniscectomy

Public title

Analgesic effect of magnesium sulfate in patients candidate of knee arthroscopic partial meniscectomy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria are male or female patients (18 to 45 years old) candidate of knee arthroscopic partial meniscectomy based on the MRI imaging. Exclusion criteria are elevated levels of serum magnesium (> 1mmol/l), known allergies to pharmaceutical agents using in the study, major dysfunction of liver and kidney and cardiovascular system, specific atrioventricular block, obesity and previous treatment with opoidal drugs, rheumatic diseases, ligamental damage of the knee and sever osteoarthritis of the knee.

Age

From **18 years** old to **45 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **94**

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

Ahvaz Jundishapur University of Medical Sciences

Street address

Golestan Blv., Research deputy, Ahvaz Jundishapur University Of Medical Sciences

City

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Postal code

61357-15794

Approval date

2017-01-07, 1395/10/18

Ethics committee reference number

IR.AJUMS.REC.1395.671

Health conditions studied

1

Description of health condition studied

Meniscal tears

ICD-10 code

M23.2

ICD-10 code description

Derangement of meniscus due to old tear or injury Old bucket-handle tear

Primary outcomes

1

Description

Pain score (VAS)

Timepoint

5, 60, 120, and 240 min after entering the recovery room

Method of measurement

Visual analogue score

Secondary outcomes

empty

Intervention groups

1

Description

Group intervention: patients receive 20 cc of normal saline containing 1 gr magnesium sulfate 10% in their knees

Category

Treatment - Drugs

2

Description

In control group: patients only receive 20 cc normal saline in their knees

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Razi Hospital, Ahvaz Jundishapur University of Medical Siences

Full name of responsible person

Dr Hanoon Sadoni

Street address

Amanieh, Razi Hospital

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ahvaz Jundishapur University of Medical Ṡciences

Full name of responsible person
Behzad Sharif Makhmalzadeh, PhD

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City
Ahvaz

Grant name

Grant code / Reference number
PAIN-9506

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

Title of funding source
Ahvaz Jundishapur University of Medical Ṡciences

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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Orthopedic Assistant

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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