Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Comparing the effect of dexmedetomidine and ketorolac to reduce post-surgery pain of patients with left lobectomy

Protocol summary

Study aim
Assess the level of pain control by Ketorolac vs Dexmedetomidine after left lobectomy lung surgery
Design
This study is a randomized controlled trial, with 2 parallel groups. Patients are blinded about allocation to each of 2 intervention groups and are assigned to the mentioned groups using random number table.
Settings and conduct
In Ghaem hospital, patients of both sex, who need Left lobectomy surgery under general anesthesia, will be randomly divided into 2 groups, receiving Ketorolac or Dexmedetomidine. They will be blinded about allocation to each group.
Participants/Inclusion and exclusion criteria
Inclusion: age more than 18 years, Informed consent form must be signed, They were scheduled for Left lobectomy surgery under general anesthesia. Exclusion: History of allergy to our study drugs, History of renal or hepatic failure, History of PUD.
Intervention groups
Intervention group 1: Patients will receive Ketorolac, 30 mg every 6 hours as infusion. Intervention group 2: Patients will receive infusion of Dexmedetomidine, 1 microgram/kg/10 minutes as loading dose and 0.2 microgram/kg/h as maintenance.
Main outcome variables
Pain intensity

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20180521039753N1**
Registration date: **2018-05-27, 1397/03/06**
Registration timing: **registered_while_recruiting**
Last update: **2018-05-27, 1397/03/06**
Update count: **0**
Registration date
2018-05-27, 1397/03/06

Registrant information
Name
Seyed Iman Hashemi
Name of organization / entity
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Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2018-05-22, 1397/03/01
Expected recruitment end date
2018-11-22, 1397/09/01
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparing the effect of dexmedetomidine and ketorolac to reduce post-surgery pain of patients with left lobectomy

Public title
Comparing the effect of dexmedetomidine and ketorolac to reduce post-surgery pain of lobectomy
Purpose
Treatment
Inclusion/Exclusion criteria

Inclusion criteria:
age more than 18 years Informed consent form must be signed They were scheduled for Left lobectomy surgery under general anesthesia.
Exclusion criteria:
History of allergy to our study drugs History of renal or hepatic failure History of PUD

Age
From **18 years** old

Gender
Both

Phase
3

Groups that have been masked

- Participant

Sample size
Target sample size: **70**

Randomization (investigator's opinion)
Randomized

Randomization description
Using random number table, patients will be divided into two groups.

Blinding (investigator's opinion)
Single blinded

Blinding description
Patients are blinded about allocation to intervention group 1 (receiving Ketorolac after surgery) and intervention group 2 (receiving Dexmedetomidine after surgery).

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Mashhad University of Medical Sciences

Street address
Qoreishi Building, Daneshgah Street.

City
Mashhad

Province
Razavi Khorasan

Postal code
91388-13944

Approval date
2017-12-13, 1396/09/22

Ethics committee reference number
IR.MUMS.fm.REC.1396.583

Health conditions studied

1

Description of health condition studied
Post-surgery pain

ICD-10 code
G89.18

ICD-10 code description
Other acute postprocedural pain

Primary outcomes

1

Description
Pain intensity

Timepoint
Immediately after surgery and 2, 4, 6, 8, 12, 16, 20 and 24 hours after surgery

Method of measurement
Visual analogue scale

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patients will receive Ketorolac, 30 mg every 6 hours as infusion.

Category
Treatment - Drugs

2

Description
Intervention group: Patients will receive infusion of Dexmedetomidine, 1 microgram/kg/10 minutes as loading dose and 0.2 microgram/kg/h as maintenance.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Ghaem hospital

Full name of responsible person
Seyed Iman Hashemi

Street address
Ahmad abad street.

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Sponsors / Funding sources

1

Sponsor
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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
Mashhad University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
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Position
Resident
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
To protect the privacy of the participants in the study
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Not applicable
Data Dictionary
Not applicable