

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Evaluation efficacy and side effects of IV ibuprofen and IV acetaminophen in pain control after laparoscopic cholecystectomy

Protocol summary

Study aim

Evaluation efficacy and side effects of IV ibuprofen and IV acetaminophen in pain control after laparoscopic cholecystectomy

Design

This multicenter, randomized, triple-blind, placebo-controlled trial was conducted in 90 patients. 1-receive Fentanyl in the form of pain-pomp and IV placebo every 8 hours for 30 patients. 2-receive Fentanyl and Ibuprofen 800 mg Iv every 8h for 30 patients. 3-receive Fentanyl and Acetaminophen 1g Iv every 8h for 30 patients. Randomization: sealed envelopes.

Settings and conduct

This trial was conducted in 90 patients scheduled to undergo elective laparoscopic cholecystectomy at Imam Khomeini hospital in Ardebil within 6 months. For all patients embedded patient-controlled analgesia pump and after surgery were randomly assigned in three groups: 1-receive Fentanyl in the form of pain-pomp and IV placebo. 2-receive Fentanyl and Ibuprofen 800 mg IV. 3-receive Fentanyl and Acetaminophen 1g IV.

Participants/Inclusion and exclusion criteria

Non-entry points: 1-Pregnancy 2-Have a history of asthma and other respiratory disease 3-Have a history of heart failure 4-Have a history of CRF or dialysis 5-Have a history of GI bleeding 6-HTN 7-Have a history of Anemia 8-Patients are taking warfarin 9-Patients are taking a combination of ACEI and furosemide 10-Tolerance or dependence to opioids 11-Allergy or hypersensitivity to ibuprofen, ASA, NSAIDs, or COX2 inhibitor 12-Age less than 20 years old and more than 60 years old

Intervention groups

1-receive Fentanyl (60 ml in 100cc N/S) in the form of pain-pomp and IV placebo every 8 hours for 30 patients. 2-receive Fentanyl and Ibuprofen 800 mg Iv every 8h for 30 patients. 3-receive Fentanyl and Acetaminophen 1g Iv every 8h for 30 patients.

Main outcome variables

Choose the more effective and less side effective drugs

to pain control

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161024030479N2**

Registration date: **2018-06-07, 1397/03/17**

Registration timing: **retrospective**

Last update: **2018-06-07, 1397/03/17**

Update count: **0**

Registration date

2018-06-07, 1397/03/17

Registrant information

Name

Mahdiyeh Masoumzadeh

Name of organization / entity

Medical university of ardebil

Country

Iran (Islamic Republic of)

Phone

+98 914 357 8380

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-07-23, 1397/05/01

Expected recruitment end date

2019-01-21, 1397/11/01

Actual recruitment start date

2016-11-21, 1395/09/01

Actual recruitment end date

2017-05-21, 1396/02/31

Trial completion date

empty

Scientific title

Evaluation efficacy and side effects of IV ibuprofen and IV acetaminophen in pain control after laparoscopic cholecystectomy

Public title

Evaluation efficacy and side effects of IV ibuprofen and IV acetaminophen in pain control after laparoscopic cholecystectomy.

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Patients candidate for laparoscopic cholecystectomy Age 20 - 60 years old

Exclusion criteria:

1-Pregnancy Have a history of asthma and other respiratory disease Have a history of heart failure Have a history of CRF or dialysis Have a history of GI bleeding HTN Have a history of Anemia Patients are taking warfarin Patients are taking a combination of ACEI and furosemide Tolerance or dependence to opioids Allergy or hypersensitivity to ibuprofen, ASA, NSAIDs, or COX2 inhibitor Age less than 20 years old and more than 60 years old

Age

From **20 years** old to **60 years** old

Gender

Both

Phase

3

Groups that have been masked

- Investigator
- Outcome assessor
- Data analyser

Sample size

Target sample size: **90**

Actual sample size reached: **90**

Randomization (investigator's opinion)

Randomized

Randomization description

Sealed envelopes

Blinding (investigator's opinion)

Triple blinded

Blinding description

Prescribing medicine order the drug without information about patient. Authorities collect data without informing the patient about the drug every six hours. Data evaluator is unaware about the type of drug given to each patient

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ardabil University of Medical Sciences

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Ardabil University of Medical Sciences, Daneshgah st.

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Postal code

56189-85991

Approval date

2017-01-29, 1395/11/10

Ethics committee reference number

IR.ARUMS.REC.1395.89

Health conditions studied**1****Description of health condition studied**

Cholecystit

ICD-10 code

K80

ICD-10 code description

Cholecystit

Primary outcomes**1****Description**

Severity of pain in the surgical site

Timepoint

6, 12, 18 and 24 hours after surgery

Method of measurement

VAS system

Secondary outcomes**1****Description**

Nausea and vomiting

Timepoint

6,12,18 and 24 hours after surgery

Method of measurement

N/V Score

2**Description**

Shoulder pain

Timepoint

6,12,18 and 24 hours after surgery
Method of measurement
VAS

3

Description
Sedation

Timepoint
6,12,18 and 24 hours after surgery

Method of measurement
Ramsay score

Intervention groups

1

Description
First intervention group(control): for all patients embedded patient-controlled analgesia pump Fentanyl (60 ml in 100cc N/S) throughout the treatment period, patients also had access to Fentanyl (0.5 mg every 15 min) via patient-controlled analgesia or by patient request(PCA). Also receive IV placebo for a total of 3 doses:after the surgery, 8 and 16h after surgery.

Category
Placebo

2

Description
Second intervention group: embedded patient-controlled analgesia pump like control group and receive IV acetaminophen 1g for a total of 3 doses:after the surgery, 8 and 16h after surgery.

Category
Treatment - Drugs

3

Description
Third intervention group: embedded patient-controlled analgesia pump like control group and receive IV Ibuprofen 800mg for a total of 3 doses:after the surgery, 8 and 16h after surgery.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Imam Khomeini Hospital in Ardabil

Full name of responsible person
Dr Ali Mohammadian Erdi

Street address
Imam Khomeini Hospital, Shahidan noiaghdam street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ardabil University of Medical Sciences

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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

Ardabil 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
Ardabil University of Medical Sciences

Full name of responsible person
Ali Mohammadian Erdi

Position
Associate Professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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Web page address**Other areas of specialty/work**

Medical Education

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Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Ardabil University of Medical Sciences

Full name of responsible person

Ali Mohammadian Erdi

Position

Associate Professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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Web page address**Person responsible for updating data****Contact****Name of organization / entity**

Ardabil University of Medical Sciences

Full name of responsible person

Mahdiyeh Masoumzadeh

Position

medical student

Latest degree

A Level or less

Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is 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

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

all the data will be publish After identifying people.name:Evaluation efficacy and side effects of IV ibuprofen and IV acetaminophen in pain control after laparoscopic cholecystectomy

When the data will become available and for how long

it Is accessible 3 months after printing results

To whom data/document is available

Every researcher In all disciplines can receive the information .

Under which criteria data/document could be used

If the data is useful for another study,Available to anyone specializing in this field.

From where data/document is obtainable

Responsive person is Mahdiyeh masoumzadeh with this way: masoumzadeh.med@gmail.com

What processes are involved for a request to access data/document

If the request is submitted to the email address, and the full introduction and explanation of the reason for the request,The data is sent within a week.

Comments