

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of intraoperative administration of ketorolac with morphine in pain control and postoperative nausea and vomiting in patients undergoing rhinoplasty in Jahrom in 2022

Protocol summary

Study aim

Comparison of intraoperative administration of ketorolac with morphine in pain control and postoperative nausea and vomiting in patients undergoing rhinoplasty

Design

This study will be a double-blind randomized clinical trial with parallel groups on 114 patients referred to Motahhari Hospital in Jahrom who are undergoing rhinoplasty surgery.

Settings and conduct

Patients referred to Motahhari Hospital in Jahrom who will undergo rhinoplasty surgery will be included in the study. Patients participating in the study will be divided into two groups of morphine and ketorolac by throwing coins. The person participating in the study, the researcher and the data collector will be unaware of the type of drug used.

Participants/Inclusion and exclusion criteria

Inclusion criteria: All patients referred to Motahhari Hospital in Jahrom who underwent rhinoplasty and expressed their consent to participate in the study.
Exclusion criteria: no hemodynamic stability; suffering from acute and chronic pain.

Intervention groups

Intervention group 1: 0.5 mg / kg morphine will be injected intravenously after induction of anesthesia.
Intervention group 2: 30 mg ketorolac (ampoule) will be injected intravenously after induction of anesthesia. It should be noted that the anesthesia method will be the same in both groups.

Main outcome variables

Pain; nausea; vomiting

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210415050976N8**

Registration date: **2021-10-20, 1400/07/28**

Registration timing: **prospective**

Last update: **2021-10-20, 1400/07/28**

Update count: **0**

Registration date

2021-10-20, 1400/07/28

Registrant information

Name

navid kalani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 71 5433 6085

Email address

k.navid@juma.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-11-01, 1400/08/10

Expected recruitment end date

2022-08-01, 1401/05/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of intraoperative administration of ketorolac with morphine in pain control and postoperative nausea and vomiting in patients undergoing rhinoplasty in

Jahrom in 2022

Public title

Comparison of intraoperative administration of ketorolac with morphine in pain control and postoperative nausea and vomiting in patients undergoing rhinoplasty

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Rhinoplasty under general anesthesia No history of allergy to morphine and ketorolac

Exclusion criteria:

Drug addiction Underlying cardiovascular disease Patients with coagulation disorders or platelets less than one hundred thousand Patients with a history of renal insufficiency and serum creatinine more than one and a half

Age

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

Gender

Both

Phase

2-3

Groups that have been masked

- Participant
- Investigator
- Outcome assessor

Sample size

Target sample size: **114**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

For blinding in the present study, the double-blind method is used so that 1- the person reviewing the results and 2- the person performing the injections do not know which patient received morphine or ketorolac.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Jahrom University of Medical Sciences

Street address

Jahrom, Shahid Motahari Boulevard, Jahrom University of Medical Sciences, Vice Chancellor for Research

City

Jahrom

Province

Fars

Postal code

7167758256

Approval date

2021-09-29, 1400/07/07

Ethics committee reference number

IR.JUMS.REC.1400.043

Health conditions studied

1

Description of health condition studied

Rhinoplasty surgery

ICD-10 code

Y81

ICD-10 code description

General- and plastic-surgery devices associated with adverse incidents

Primary outcomes

1

Description

the pain

Timepoint

Periods immediately after surgery, 15 minutes, 3 hours and 6 hours after surgery

Method of measurement

VAS criteria

2

Description

nausea and vomiting

Timepoint

After surgery

Method of measurement

Nausea and vomiting questionnaire

Secondary outcomes

1

Description

Vital signs

Timepoint

Immediately after surgery and then at 15, 3 and 6 minutes after surgery

Method of measurement

monitoring

Intervention groups

1

Description

Intervention group 1: 0.5 mg / kg morphine will be injected intravenously after induction of anesthesia.

Category

Treatment - Drugs

2

Description

Intervention group 2: 30 mg ketorolac (ampoule) will be injected intravenously after induction of anesthesia. It should be noted that the anesthesia method will be the same in both groups.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Motahhari Hospital of Jahrom

Full name of responsible person

Navid Kalani

Street address

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Jahrom University of Medical Sciences

Full name of responsible person

Kavous Solh joo

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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

Jahrom 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

Jahrom University of Medical Sciences

Full name of responsible person

Navid Kalani

Position

Research Expert

Latest degree

Master

Other areas of specialty/work

Anesthesiology

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Person responsible for updating data

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be 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

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

Informed Consent Form

Undecided - It is not yet known if there will be 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