

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

30 May 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**

Jahrom, Shahid Motahari Boulevard, Motahari Hospital

**City**

Jahrom

**Province**

Fars

**Postal code**

71677251542

**Phone**

+98 71 3525 5652

**Email**

Navidkalani@ymail.com

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Jahrom University of Medical Sciences

**Full name of responsible person**

Kavous Solh joo

**Street address**

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

**City**

Jahrom

**Province**

Fars

**Postal code**

7167758256

**Phone**

+98 71 2536 5231

**Email**

navidkalani@ymail.com

**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

**Street address**

Jahrom, Shahid Motahari Boulevard

**City**

Jahrom

**Province**

Fars

**Postal code**

7167758256

**Phone**

+98 71 2536 5231

**Email**

k.navid@jums.ac.ir

**Person responsible for scientific 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

**Street address**

Jahrom, Shahid Motahari Boulevard

**City**

Jahrom

**Province**

Fars

**Postal code**

7167758256

**Phone**

+98 71 2536 5231

**Email**

k.navid@jums.ac.ir

**Phone**

+98 71 2536 5231

**Email**

k.navid@jums.ac.ir

**Person responsible for updating data****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

**Street address**

Jahrom, Shahid Motahari Boulevard

**City**

Jahrom

**Province**

Fars

**Postal code**

7167758256

**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