

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jun 2026

Comparison of the effect of intratracheal and intravenous lidocaine on bucking, cough, and emergence time at the end of anesthesia

Protocol summary

Summary

Airways responses to emergence from general anesthesia are common problems and can result in undesirable side effects, such as coughing, laryngospasm and hypertension. The aim of this study was to compare the effect of intratracheal and intravenous lidocaine on bucking, cough and emergence time at the end of anesthesia. Sixty ASA I-II patients received a standard anesthetic. Three minutes before the end of surgery, they were randomly allocated to receive either intravenous lidocaine 1.5mg/kg or intratracheal lidocaine 1.5mg/kg in a double-blind study. The number of bucking and coughs for each patient were continuously monitored for 30 min after extubation. Bucking and coughing were evaluated through a 3-point scale. Heart rate (HR) and Systolic and Diastolic blood pressures (SBP, DBP) were measured before and immediately after tracheal extubation. The emergence time also was recorded.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138810223051N1**

Registration date: **2010-06-04, 1389/03/14**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2010-06-04, 1389/03/14

Registrant information

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Marzieh Khezri

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Qazvin University of Medical Sciences

Expected recruitment start date

2009-01-09, 1387/10/20

Expected recruitment end date

2009-06-10, 1388/03/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of intratracheal and intravenous lidocaine on bucking, cough, and emergence time at the end of anesthesia

Public title

Comparison of the effect of intratracheal and intravenous lidocaine on bucking, cough, and emergence time at the end of anesthesia

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: aged 18 to 60 years, scheduled for elective minor orthopedic surgery, lower abdominal surgery or gynecologic surgery Exclusion criteria: history of laryngeal or tracheal surgery or pathology, bronchial asthma, addiction and smoking., coexisting systemic illness increased intracranial pressure, severe cardiac disease, active upper respiratory tract infections,

increased risk for perioperative aspiration of gastric contents, combined epidural/general anesthetic techniques, consumption of cardiovascular medications such as ACE Inhibitors

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Qazvin University of Medical Sciences

Street address

Shahid Bahonar Blvd.

City

Qazvin

Postal code

Approval date

2008-12-29, 1387/10/09

Ethics committee reference number

219

Health conditions studied

1

Description of health condition studied

Airways responses to emergence from general anesthesia

ICD-10 code

Y55.7

ICD-10 code description

Anaesthetic, unspecified

2

Description of health condition studied

the emergence time

ICD-10 code

Y48.4

ICD-10 code description

Anaesthetic, unspecified

Primary outcomes

1

Description

The number of bucking and coughs

Timepoint

before tracheal extubation and thirty minutes after extubation

Method of measurement

bucking and coughing were evaluated on a 3-point scale

2

Description

The emergence time

Timepoint

the time from discontinuation of drugs to extubation of patients at awake condition

Method of measurement

In minutes

Secondary outcomes

1

Description

Heart rate (HR)

Timepoint

immediately after tracheal extubation

Method of measurement

with noninvasive monitoring

2

Description

Systolic blood pressure

Timepoint

immediately after tracheal extubation

Method of measurement

with noninvasive monitoring

3

Description

Diastolic blood pressure

Timepoint

immediately after tracheal extubation

Method of measurement

with noninvasive monitoring

Intervention groups

1

Description

intratracheal lidocaine 1.5 mg/kg

Category

Prevention

2

Description

intravenous lidocaine 1.5 mg/kg

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Rajaei hospital

Full name of responsible person

Marzie-beigom Khezri

Street address

City

Qazvin

2

Recruitment center

Name of recruitment center

Kosar hospital

Full name of responsible person

Street address

City

Qazvin

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Marzie-beigom Khezri

Street address

Kosar Hospital

City

Qazvin

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Qazvin University of Medical Sciences

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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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