

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jul 2026

Comparison of the effect of 10% lidocaine spray on blade of laryngoscope with IV lidocaine on the cardiovascular responses to laryngoscopy and endotracheal intubation in patients with elective surgery

Protocol summary

Summary

The aim of this study is to compare the effect of 10% lidocaine spray on blade of laryngoscope with IV lidocaine on the cardiovascular responses to laryngoscopy and endotracheal intubation in patient with elective surgery. Inclusion criteria include: Age range 15-65 years; Patients with anesthesia class 1; Patients are willing to participate in the study Exclusion criteria include: More than once effort to laryngoscopy and intubation; Allergy to lidocaine; Weight more than 100 kg This study is a simple randomized clinical trial. The study population is all the patients who are admitted to the Gonabad hospitals for elective surgery. In this study 90 patients with age range 15-65 years and anesthesia class 1 that undergo elective surgery are selected. patients with block permutation method can be divided into three groups. Every group was placed in the supine position on the operating table. Before induction of anesthesia 3-5 cc per kg Ringer, 1 mg midazolam and 1 mic per kg fentanil as premed received. Position of patients from the beginning to the end of the study are supine. Anesthetic agents unified into three groups and given a specified dose.(propofol 2mg per kg, atracurium 4 mg per kg and fentanyl 2 mic per kg). In IV Group Intravenous lidocaine 1 mg per kg 60-90 seconds before laryngoscopy and in spray group 1/5 mg per kg of 10% lidocaine spray three minutes after the induction sprayed on the blade of laryngoscope. In control group didnt use any drug. Their blood pressure (systolic, diastolic and mean) and heart rate immediately before and immediately after laryngoscopy and 1, 3 and 5 minutes after laryngoscopy is measured and recorded. Then the results of three groups will compare and final result will be announced.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013061213647N1**

Registration date: **2014-03-11, 1392/12/20**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-03-11, 1392/12/20

Registrant information

Name

Mahdi Esmaeili

Name of organization / entity

Gonabad University Of Medical Science

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Gonabad University of Medical Science

Expected recruitment start date

2013-12-31, 1392/10/10

Expected recruitment end date

2014-03-11, 1392/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Comparison of the effect of 10% lidocaine spray on blade of laryngoscope with IV lidocaine on the cardiovascular responses to laryngoscopy and endotracheal intubation in patients with elective surgery

Public title
The effect of Spray lidocaine on the blade of laryngoscope on cardiovascular responses

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion criteria: Age range 15-65 years; Patients with anesthesia class 1; Patients with Mallampati airway class 1; Patients are willing to participate in the study
Exclusion criteria: More than once in an effort to laryngoscopy and intubation; Allergy to lidocaine; Weight more than 100 kg

Age
From **15 years** old to **65 years** old

Gender
Both

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **90**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee Of Gonabad University of Medical Science

Street address
Gonabad University Of Medical Science, Asian Road, Gonabad

City
Gonabad

Postal code
9691793718

Approval date

2013-12-22, 1392/10/01
Ethics committee reference number
Gmu.Rec.1392.19

Health conditions studied

1

Description of health condition studied
Associated with 10% lidocaine spray on the blade of laryngoscope and intravenous lidocaine on cardiovascular responses

ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Systolic Blood Pressure

Timepoint
Immediately before intrvention, Immediately after intervention and 1, 3, 5 minute after intervention

Method of measurement
MmHg with Sphygmomenometer

2

Description
Heart rate

Timepoint
Immediately before intrvention, Immediately after intervention and 1, 3, 5 minute after intervention

Method of measurement
Beat per minute with pulseoximetry

3

Description
Dyastolic Blood Pressure

Timepoint
Immediately before intrvention, Immediately after intervention and 1, 3, 5 minute after intervention

Method of measurement
MmHg with Sphygmomenometer

4

Description
Mean Arterial Blood pressure

Timepoint
Immediately before intrvention, Immediately after intervention and 1, 3, 5 minute after intervention

Method of measurement
MmHg with Sphygmomenometer

Secondary outcomes

empty

Intervention groups

1

Description

The patients placed in 3 groups. The three groups are given same doses of anesthetics(Propofol 2 mg/kg, Atracurium 0/4 mg/kg and Fentanyl 2 mic/kg).Intravenous lidocaine in Group IV 1 mg/kg 60-90 seconds before laryngoscopy injected. Their blood pressure (systolic, diastolic and mean) and heart rate immediately before and immediately after laryngoscopy and 1, 3 and 5 minute after laryngoscopy is measured and recorded

Category

Prevention

2

Description

The patients placed in 3 groups. The three groups are given same doses of anesthetics(Propofol 2 mg/kg, Atracurium 0/4 mg/kg and Fentanyl 2 mic/kg) and in spray group 10% lidocaine spray 1/5 mg/kg three minutes after induction on the blade of laryngoscop is pressed.Their blood pressure (systolic, diastolic and mean) and heart rate immediately before and immediately after laryngoscopy and 1, 3 and 5 minute after laryngoscopy is measured and recorded

Category

Prevention

3

Description

The patients placed in 3 groups. The three groups are given same doses of anesthetics(Propofol 2 mg/kg, Atracurium 0/4 mg/kg and Fentanyl 2 mic/kg) and in control group did not use any drug.Their blood pressure (systolic, diastolic and mean) and heart rate immediately before and immediately after laryngoscopy and 1, 3 and 5 minute after laryngoscopy is measured and recorded

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Gonabad University Of Medical Science

Full name of responsible person

Mahdi Esmaeili

Street address

Gonabad University Of Medical Science, Asian Road,
Gonabad

City

Gonabad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research of Gonabad University of
Medical Science

Full name of responsible person

Doctor Arash Hamzei

Street address

Gonabad University of Medical Science, Asian Road,
Gonabad

City

Gonabad

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for Research of Gonabad University of
Medical Science

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

Gonabad University of Medical Science

Full name of responsible person

Mahdi Esmaeili

Position

MSc of Critical Care Nursing

Other areas of specialty/work

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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