Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparing the effect of three methods for induction of anesthesia (propofol, Etomidate, propofol+Etomidate) on quality of laryngeal mask airway replacement and hemodynamic stability in elective surgeries

Protocol summary

Summary

The purpose of this randomized clinical trial is to compare the effects of three methods of anesthesia induction (propofol, etomidate and propofol+etomidate) on quality of laryngeal mask airway replacement and hemodynamic stability in elective surgeries. A total of 90 patients with ASA I and II class, undergoing elective surgeries, will be randomly allocated into one of the following three groups. Before anesthesia induction all patients will receive %0.9 Normal saline 6 mL/kg. Thirty minutes before anesthesia induction, all patients were premedicated using fentanyl 2microg/kg + midazolam 0.025 mg/kg +lidocaine 1mg/kg intravenously (IV). Interventions in this clinical trial are: propofol Propofol 2.5 mg/kg, or Etomidate Etomidate 0.3 mg/kg, or propofol and Etomidate Etomidate 0.2 mg/kg plus propofol 1 mg/kg which will be given once to induce anesthesia required for surgery. Heart rate, systolic blood pressure, diastolic blood pressure, mean arterial pressure and pulse oximetry are measured before induction and 30 seconds after induction. Laryngeal masks are inserted by a blind investigator 60 seconds after anesthesia induction. Apnea time is recorded in all patients. The correct placement of LMA was verified using capnography, chest movement and absence of leakage around the cuff. Later, anesthesia is maintained using oxygen (3 L/min), nitrous oxide (3 L/min), and isoflurane(1-1.5%).The reactions from the patients are also graded. If LMA insertion is unsuccessful and patient had coughing, gagging or movement of head or limbs, the patients receive an additional dose in all three groups. In group one: propofol 0.5 mg/kg, group two: etomidate 0.15 mg/kg and group three: propofol 0.25 mg/kg plus etomidate 0.1mg/kg.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201101054731N5**
Registration date: **2012-01-15, 1390/10/25**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2012-01-15, 1390/10/25

Registrant information

Name
Hamze Hosseinzade
Name of organization / entity
Tabriz University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 41 1334 7055
Email address
hosseinz@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Research vice-chancellor of Tabriz university of medical sciences

Expected recruitment start date

2011-04-21, 1390/02/01

Expected recruitment end date

2012-04-19, 1391/01/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Comparing the effect of three methods for induction of anesthesia (propofol, Etomidate, propofol+Etomidate) on quality of laryngeal mask airway replacement and hemodynamic stability in elective surgeries

Public title
propofol, etomidate or propofol with etomidate which one influences quality of laryngeal mask replacement and hemodynamic stability lesser.
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria: Adult patients with ASA (American society of Anesthesiologist) class I and II; age between 18-70 years; undergoing surgery with LMA (Laryngeal Mask Airway). Exclusion criteria: Pharynx or larynx pathology; mouth opening less than 2cm; bronchial asthma; cardiovascular diseases or mallampati 3-4.
Age
From **18 years** old to **70 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)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Research vice-chancellor of Tabriz university of medical sciences
Street address
Golghasht
City
Tabriz
Postal code
Approval date
2011-04-04, 1390/01/15
Ethics committee reference number
5/4/2793

Health conditions studied

1

Description of health condition studied
1:Heart rate changes due to induction of anesthesia
ICD-10 code
R00.1
ICD-10 code description
Bradycardia,unspecified

2

Description of health condition studied
Blood pressure changes due to induction of aneasthesia
ICD-10 code
R03.1
ICD-10 code description
Nonspecific low blood-pressure reading

Primary outcomes

1

Description
Systolic blood pressure
Timepoint
Before anesthesia,after induction of anesthesia,before insertion of LMA, after insertion LMA and every 1min up to 3min
Method of measurement
non invesive monitoring devices with automatic cuff

2

Description
Dyastolic blood pressure
Timepoint
Before anesthesia,after induction of anesthesia,before insertion of LMA, after insertion LMA and every 1min up to 3min
Method of measurement
non invesive monitoring devices with automatic cuff

3

Description
Mean arterial pressure
Timepoint
Before anesthesia,after induction of anesthesia,before insertion of LMA, after insertion LMA and every 1min up to 3min
Method of measurement
non invesive monitoring devices with automatic cuff

4

Description

Heart rate

Timepoint

Before anesthesia,after induction of anesthesia,before insertion of LMA ,after insertion LMA and every 1min up to 3min

Method of measurement

continuos ECG monitoring

5

Description

Oxygen saturation

Timepoint

Before anesthesia,after induction of anesthesia,before insertion of LMA ,after insertion LMA and every 1min up to 3min

Method of measurement

Pulse oxymetry devices

6

Description

The apnea time after induction anesthesia until return of the first spotaneos ventilation

Timepoint

Before anesthesia,after induction of anesthesia,before insertion of LMA ,after insertion LMA and every 1min up to 3min

Method of measurement

continuos ECG monitoring

Secondary outcomes

1

Description

Quality of laryngeal mask airway replacement

Timepoint

After replacement larygeal mask airway

Method of measurement

Insertion condition were graded in a system modifid from lund and stovener

2

Description

Number of attempts for LMA insetion

Timepoint

Number of attempt

Method of measurement

observation

3

Description

Quality of airway

Timepoint

After replacement larygeal mask airway

Method of measurement

observation

Intervention groups

1

Description

Propofol 2.5mg/kg will be given once to put the patient to sleep for surgery

Category

Prevention

2

Description

Etomidate 0.3mg/kg will be given once to put the patient to sleep for surgery

Category

Prevention

3

Description

Propofol 1mg/kg plus Etomidate 0.2 mg/kg will be given once to put the patient to sleep for surgery

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Emam Reza hospital

Full name of responsible person

Hosseinzade Hamze

Street address

Golgasht street

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Research vice-chancellor of Tabriz university of medical Sciences

Full name of responsible person

Mohammad Reza Rashidi

Street address

Golgasht,Tabriz Medical Sciences

City

Tabriz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Research vice-chancellor of Tabriz 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
Tabriz University of Medical Sciences
Full name of responsible person
Hamzeh Hosseinzadah
Position
professor
Other areas of specialty/work
Street address
Emam Reza Hospital
City
Tabriz
Postal code
Phone
+98 41 1334 7055
Fax
Email
hosseinz@tbzmed.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Mohammad Reza Rashidi
Position
professor
Other areas of specialty/work
Street address
Golgasht,Tabriz University of Medical Sciences
City
Tabriz
Postal code
00984113347055
Phone
+98 41 1334 4280
Fax
+98 41 1334 7345
Email
rashidi@tbzmed.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Effat Torabi
Position
Resident
Other areas of specialty/work
Street address
Emam Reza Hospital, Golgasht
City
Tabriz
Postal code
00984113347055
Phone
+98 41 1334 7055
Fax
Email
effat.torabi@gmail.com
Web page address

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