

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

Comparison of hemodynamic changes between tracheal intubation with Mackintosh Laryngoscope and Glidescope

Protocol summary

Summary

In this randomized clinical trial, 104 patients who are candidates for elective surgery under general anesthesia and tracheal intubation will be enrolled. Inclusion criteria: ASA physical status 1 or 2, Mallampati classification 1 or 2, Aged between 18 and 60 Baseline BP less than 140/90, Patients without history of difficult intubation or laryngoscopy, Patients without history of cardiovascular disease, hypertension, diabetes, pulmonary, and other systemic disease as well as cervical spine disease, and GERD, Patients without difficult laryngoscopy or intubation, Body mass index ≤ 30 , without consumption of any drugs effective on blood pressure or heart rate (e.g. beta-blocker or calcium channel blockers) Exclusion criteria: Patients failed to be ventilated by face mask following induction of anesthesia, Decrease more than 25% in heart rate (HR) and blood pressure (BP) after induction of anesthesia, Decrease in O₂ saturation to $\leq 94\%$ during ventilation or intubation, Cormack and Lehane score more than 2 at laryngoscopy, Failed intubation attempt which defined as patients requiring more than one attempt to achieve successful intubation, intubations that require more than 30s to be performed and also need for another person to complete the procedure. All laryngoscopy and intubation procedures will be performed by a single investigator in year 3 of residency. Premedication, oxygenation and then induction of anesthesia will be performed as the same in both groups. One group will be intubated by Mackintosh laryngoscope and the other group by Glidescope (video laryngoscope). Heart rate, systolic and diastolic blood pressure will be recorded at different times before and after intubation. Also the time need for intubation between 2 groups will be measured and compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201111264969N4**

Registration date: **2011-12-20, 1390/09/29**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-12-20, 1390/09/29

Registrant information

Name

Alireza Pournajafian

Name of organization / entity

Tehran University of Medical Science

Country

Iran (Islamic Republic of)

Phone

+98 21 8894 6762

Email address

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Science

Expected recruitment start date

2011-08-23, 1390/06/01

Expected recruitment end date

2012-02-19, 1390/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of hemodynamic changes between tracheal intubation with Mackintosh Laryngoscope and Glidescope

Public title

Comparison of hemodynamic changes between tracheal intubation with Mackintosh Laryngoscope and Glidescope

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: 1- ASA physical status 1 or 2 2- Mallampati classification 1 or 2 3- Aged between 18 and 60 4- Baseline BP less than 140/90 5- Patients without history of difficult intubation or laryngoscopy 6- Patients without history of cervical spine disease, GERD, and pulmonary disease 7- Patients without difficult laryngoscopy or intubation. 8- Body mass index \leq 30
Exclusion criteria: 1- Patients failed to be ventilated by face mask following induction of anesthesia 2- Decrease more than 25% in heart rate (HR) and blood pressure (BP) after induction of anesthesia 3- Decrease in O₂ saturation to \leq 94% during ventilation or intubation 4- Cormack and Lehane score more than 2 at laryngoscopy 5- Failed intubation attempt which defined as patients requiring more than one attempt to achieve successful intubation, intubations that require more than 30s to be performed and also need for another person to complete the procedure. 6- Patients taking antihypertensive or other medications affecting on HR and BP such as β -blockers, and calcium channel blockers

Age

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

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **104**

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**

Tehran University of Medical Science

Street address

Next to Milad Tower, Hemmat Highway

City

tehran

Postal code**Approval date**

2011-06-25, 1390/04/04

Ethics committee reference number

1356/130/د

Health conditions studied**1****Description of health condition studied**

blood pressure and heart rate changes after tracheal intubation

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

systolic blood pressure

Timepoint

every 3 minutes

Method of measurement

automatic

2**Description**

diastolic blood pressure

Timepoint

every 3 minutes

Method of measurement

automatic

3**Description**

heart rate

Timepoint

every 3 minutes

Method of measurement

puls oxymeter

Secondary outcomes**1****Description**

sorethroat

Timepoint

after surgery (recovery room)

Method of measurement

asking the patient and observation

2**Description**

horseness

Timepoint

after surgery (recovery room)
Method of measurement
asking the patient and observation

3

Description
intubation time
Timepoint
during intubation
Method of measurement
chronometer

Intervention groups

1

Description
laryngoscopy with mackintosh laryngoscop
Category
N/A

2

Description
laryngoscopy with glidescope (video laryngoscop)
Category
N/A

Recruitment centers

1

Recruitment center
Name of recruitment center
Firoozgar hospital
Full name of responsible person
Alireza Pournajafian
Street address
Beh Afarin st. Karim Khan Aven.
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tehran University of Medical Science
Full name of responsible person
shohreh asadi
Street address
Poursina st.- Keshavarz Aven.
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source

Tehran 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

Person responsible for scientific inquiries

Contact

Name of organization / entity
Tehran University of Medical Science
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Assistant professor of anesthesia
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Person responsible for updating data

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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