

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

comparison between the effect of using of trapezius squeezing test with jaw thrust maneuver on the incidence of successful attempts for LMA insertion.

Protocol summary

Summary

The aim of this study was to compare trapezius squeezing test versus jaw thrust as clinical indicators for appropriate condition for insertion of laryngeal mask airway. This triple blind randomized clinical trial study was done on 138 patients aged 20 to 70 years old undergoing minor surgeries, randomly allocated in T (trapezius squeezing test=69) or J (jaw thrust=69) group in Emam Reza hospital of Birjand university of medical sciences. The LMA was inserted after the loss of motional response to trapezius squeezing or jaw thrust. Heart rate and blood pressure was measured after induction of anesthesia as a base line. The variability more than 20% in blood pressure or heart rate 1 min after LMA insertion to the base line or the occurrence of coughing, gagging, gross purposeful movements, breath-holding, laryngospasm, or an SpO₂ < 90% during LMA insertion were considered as an unsuccessful attempt. The incidence of successful attempt, insertion time were compared between two groups. Key points: Jaw thrust; Laryngeal mask airway; Trapezius squeezing test

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017070421383N7**

Registration date: **2017-09-26, 1396/07/04**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-09-26, 1396/07/04

Registrant information

Name

Amir Saber Tanha

Name of organization / entity

Birjand University of Medical Sciences

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Email address

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Recruitment status

Recruitment complete

Funding source

Birjand University of Medical Sciences

Expected recruitment start date

2017-05-05, 1396/02/15

Expected recruitment end date

2017-08-06, 1396/05/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

comparison between the effect of using of trapezius squeezing test with jaw thrust maneuver on the incidence of successful attempts for LMA insertion.

Public title

comparing the effect of trapezius squeezing test versus jaw thrust maneuver on the incidence of successful attempts for LMA insertion.

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria: All the patients aged 18 to 70 years old with American Society of Anesthesia physical status

classification (ASA) 1 to 2 who were scheduled for elective surgeries. Exclusion criteria: Emergent surgeries; The patients with history of hypertension, dysautonomia, difficult intubation, neuropathy or plegia: symptoms of difficult intubation; addicted patients; substance abuse.

Age

From **18 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **138**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Triple blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features

The motor response recorded by an independent researcher who was not in the operating room while the test was performed. Also, the patients and the statistical researcher were uninformed about the study groups. For randomization we wrote numbers from 1 to 138 on separate papers and put it in envelopes. Envelopes were put in a box. At entrance to the operating room each patient picked up one envelope randomly from the box and gave it to the investigator who was responsible for doing maneuver. Squeezing the trapezius muscle for odd numbers and jaw thrust for even numbers was performed.

Secondary Ids

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Birjand University of Medical Sciences

Street address

Birjand University of Medical Sciences, Ghafari Street, Birjand, Iran.

City

Birjand

Postal code**Approval date**

2017-04-24, 1396/02/04

Ethics committee reference number

ir.bums.rec.1396.24

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

general anesthesia

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

successful attempt

Timepoint

After laryngeal mask insertion

Method of measurement

observation

2**Description**

insertion time

Timepoint

immediately after no response to maneuvers

Method of measurement

hour

Secondary outcomes

empty

Intervention groups**1****Description**

trapezius squeezing test

Category

Other

2**Description**

jaw thrust

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Imam Reza hospital of Birjand University of Medical Sciences.

Full name of responsible person

Dr. Amir Saber Tanha

Street address**City**

Birjand

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Birjand University of Medical Sciences

Full name of responsible person

Dr. tooba kazemi

Street address

Vice Chancellor for research, Birjand University of Medical Sciences, Ghafari Street, Birjand, Iran

City

Birjand

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, Birjand 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**

Birjand University of Medical Sciences

Full name of responsible person

Dr. Amir Saber Tanha

Position

Assistant Professor of Anesthesia

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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