

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jul 2026

Comparing the effect of laryngoscopy on hemodynamic status and Neutrophil to Lymphocyte Ratio (NLR) after induction of anesthesia Ethomidite, Propofol and Ketamine

Protocol summary

Study aim

Comparing the effect of laryngoscopy on hemodynamic status and Neutrophil to Lymphocyte Ratio (NLR) after induction of anesthesia Ethomidite, Propofol and Ketamine

Design

The clinical trial, three blind, without randomization on 90 patients

Settings and conduct

This is a three-blind clinical trial that will be conducted on 90 patients who are candidates for general anesthesia at Al-Zahra Hospital in Isfahan. After the approval of the ethics committee of the university and obtaining the consent of the patients, the patients are put under anesthesia and blood samples are taken before and after intubation and after the end of the operation and when they are discharged from recovery. The samples are collected in identical and coded tubes and sent to the laboratory immediately. The clinical symptoms of the patient are monitored and recorded from the moment of entering the operating room until the moment of leaving the recovery room.

Participants/Inclusion and exclusion criteria

Inclusion criteria: age 18 to 65, ASA anesthesia class I and II, candidate for general anesthesia
Non-entry criteria: obesity, cardiovascular and hemodynamic diseases, drug and psychotropic addiction, pregnancy, and breastfeeding.

Intervention groups

Intervention group: In this study, all 90 eligible patients are monitored after general anesthesia and their symptoms are recorded. Also, before and after general anesthesia and when entering recovery, cbc blood samples are taken from the patient to measure the Neutrophil to Lymphocyte Ratio.

Main outcome variables

Neutrophil to lymphocyte ratio

General information

Reason for update

Acronym

NLR

IRCT registration information

IRCT registration number: **IRCT20160307026950N56**

Registration date: **2023-12-25, 1402/10/04**

Registration timing: **registered_while_recruiting**

Last update: **2023-12-25, 1402/10/04**

Update count: **0**

Registration date

2023-12-25, 1402/10/04

Registrant information

Name

Behzad Nazemroaya

Name of organization / entity

Isfahan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 3212 3543

Email address

behzad_nazem@med.mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-12-06, 1402/09/15

Expected recruitment end date

2024-03-05, 1402/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the effect of laryngoscopy on hemodynamic status and Neutrophil to Lymphocyte Ratio (NLR) after induction of anesthesia Ethomidite, Propofol and Ketamine

Public title

Comparing the effect of laryngoscopy on hemodynamic status and Neutrophil to Lymphocyte Ratio (NLR) after induction of anesthesia Ethomidite, Propofol and Ketamine

Purpose

Diagnostic

Inclusion/Exclusion criteria**Inclusion criteria:**

Patients 18 to 60 years old Anesthesia class I and II according to ASA criteria Candidate for surgery under general anesthesia Informed consent to enter the study

Exclusion criteria:

Hemodynamic disorders Use of psychotropic or sedative drugs Addiction to opioid and non-opioid drugs BMI (Body Mass Index) > 30 Cardiovascular diseases Pregnancy and breastfeeding Having diabetes, orthostatic hypotension, bradycardia, hypokalemia, hypothyroidism, depression, long QT syndrome

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

2

Groups that have been masked

- Participant
- Care provider
- Investigator

Sample size

Target sample size: **90**

Randomization (investigator's opinion)

N/A

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

Triple blinded

Blinding description

This is a three-way blind clinical trial so that before obtaining consent, the patients are included in the study, but the patient does not know which people are included in the study, and it is assumed that the conditions are the same for everyone, the samples are also inside the tube. Identical forms that only have the characteristics and code of the patient group are placed so that the laboratory experts are also kept blind, those responsible for collecting data, and those who evaluate the outcome also do not know about the patient group are blind.

Placebo

Not used

Assignment

Single

Other design features**Secondary Ids**

empty

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

Ethics Committee in Biomedical Research, Isfahan University of Medical Sciences

Street address

Hezar jarib

City

Isfahan

Province

Isfahan

Postal code

8174673461

Approval date

2023-10-23, 1402/08/01

Ethics committee reference number

IR.MUI.MED.REC.14020271

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

Neutrophil Lymphocyte ratio

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

Neutrophil to lymphocyte ratio

Timepoint

Before anesthesia, after intubation, 20min after general anesthesia, entrance to the recovery unit

Method of measurement

Venous blood sample

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

Blood Pressure

Timepoint

Before anesthesia, after intubation, 20min after general anesthesia, entrance to the recovery unit

Method of measurement

Sphygmomanometer

Intervention groups

1

Description

Intervention group: In this study, all 90 eligible patients are monitored after general anesthesia and their symptoms are recorded. Also, before and after general anesthesia and when entering recovery, cbc blood samples are taken from the patient to measure the Neutrophil to Lymphocyte Ratio.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Alzahra hospital

Full name of responsible person

Behzad Nazemoroaya

Street address

Soffe street

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8174675731

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behzad_nazem@med.mui.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Shaghayegh Haghjoo

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Esfahan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Peyman Farhanian

Position

Anesthesiology resident

Latest degree

Medical doctor

Other areas of specialty/work

Anesthesiology

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Behzad Nazem roaya

Position

Professor associate of Anesthesia and Intensive care
intensive care

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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Person responsible for updating data

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Behzad Nazemroaya

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

Street address

Hezar jarib

City

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no more information

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available