# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

16 Sep 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 on90 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 drugsAddiction to opioid and non-opioid drugs BMI (Body Mass Index)>30Cardiovascular 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**
Isfehan

**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, enterance 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, enterance 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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## 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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research@mui.ac.ir

**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 carentensive care

**Latest degree**
Specialist

**Other areas of specialty/work**
Anesthesiology

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## Person responsible for updating data

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**Position**

Associate professor

**Latest degree**

Specialist

**Other areas of specialty/work**

Anesthesiology

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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