

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jun 2026

The effect of Dexmethomedin on oxygenation in patients with one lung ventilation during thracic srugery

Protocol summary

Summary

In current study, we aimed to evaluate effect of dexmedetomidine drug use on arterial blood oxygenation level in patients undergo thoracic surgery. Adult patients with grade I or III of American Society of Anesthesiology (ASA), candidate for thoracotomy will be enrolled study and patients with severe cardiac, hepatic or renal diseases will be excluded. After, consecutive sampling, using randomly permuted blocks method, patients will be assigned to study groups. 42 patients will be randomly divided to two study groups, whereas, 21 patients will be assigned to study group (intravenous administration of anesthesia including dexmedetomidine infusion) and 21 patients will be assigned to control group (intravenous administration of anesthesia including normal saline serum infusion). Patients and physician recording variables will be blinded to patients' study groups allocation. Arterial blood sampling will be done before differential lung ventilation (DLV), 10 minutes after DLV and 20 minutes before end of the DLV, in order to arterial blood oxygen saturation level measurement. In addition, dosage of other anesthetics used in both groups of the study will be recorded during operation. Two groups patients will be compared in terms of mentioned variables.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201610174731N15**

Registration date: **2017-01-20, 1395/11/01**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-01-20, 1395/11/01

Registrant information

Name

Hamze Hosseinzade

Name of organization / entity

Tabriz University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Vice chancellor of research and development of Tabriz University of Medical Sciences.

Expected recruitment start date

2016-08-22, 1395/06/01

Expected recruitment end date

2018-01-20, 1396/10/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of Dexmethomedin on oxygenation in patients with one lung ventilation during thracic srugery

Public title

The effect of Dexmethomedin on oxygenation

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Class I or III according to ASA classification; aged between 18 to 65 year-old; candidate for elective thoracotomy with DLV. Exclusion criteria: severe cardiac disease; severe hepatic disease; severe

renal disease; body mass index greater than 30; anemia (hemoglobin less than 12mg / dl); chest trauma; sensitivity to dexmedetomidin

Age

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

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **42**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Randomly permuted blocks method used for patients randomized assignment to study groups

Secondary Ids

1

Registry name

Secondary trial Id

Registration date

2017-11-21, 1396/08/30

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

Street address

Vice chancellor for research, Tabriz university of medical sciences, Daneshgah square

City

Tabriz

Postal code

Approval date

2016-07-17, 1395/04/27

Ethics committee reference number

IR.TBZMED.REC.1395.506

Health conditions studied

1

Description of health condition studied

Drug effect on lung ventilation

ICD-10 code

J95

ICD-10 code description

Intraoperative and postprocedural complications and disorders of respiratory system, not elsewhere classified

Primary outcomes

1

Description

evaluating dexmedetomidine effects on arterial oxygenation

Timepoint

10 minutes after anesthesia and 20 minutes before end of the operation

Method of measurement

arterial blood oxygen saturation measurement

Secondary outcomes

1

Description

measurement the use of other anesthetic agents during dexmedetomidine administration

Timepoint

during operation

Method of measurement

measuring dosage of anesthetic agents administered other than dexmedetomidine

Intervention groups

1

Description

control group: 1 microgram per kilogram body weight, dexmedetomidine will be given during first 10 minutes after anesthesia and infusion will be administered in dosage of 0.9 microgram per kilogram body weight during per hour.

Category

Treatment - Drugs

2

Description

control group: 1 microgram per kilogram body weight, placebo (normal saline serum) will be given during first 10 minutes after anesthesia and infusion will be administered in dosage of 0.9 microgram per kilogram body weight during per hour.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Hospital Imam Reza (AS) Tabriz
Full name of responsible person
Street address
Golgasht Street, Tabriz
City
Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tabriz Medical University
Full name of responsible person
Alireza Ostadrahimi
Street address
Vice chancellor for research, Tabriz University of
medical sciences, Daneshgah square
City
Tabriz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Tabriz Medical University

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

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Web page address Person responsible for scientific inquiries

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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