Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Assessment of dexmedetomidine effect on cough prevention after anesthesia in patinets undergoing thyroidectomy

Protocol summary

Study aim

Assessment of dexmedetomidine effect on cough prevention after anesthesia in patinets undergoing thyroidectomy

Design

Patients will be divided into intervention and control groups by their number being even or odd when entering the study. The intervention group will receive 0.5 µg / kg dexmedetomidine during anesthesia. Prodrugs will include midazolam 1-2 mg IV and fentanyl 2 µg / kg in both groups. Anesthesia will be induced with propofol 1.5 mg / kg. After confirmation of adequate muscle relaxation by administering atracurium 0.5 mg / kg IV, an endotracheal tube (ETT) with an internal diameter of 7 mm (female) or 8 mm (male) will be inserted into the trachea. The frequency of cough and the severity of cough in both groups will be evaluated and evaluated analogously during recovery and during attendance in recovery. In this study, the severity of cough will be as follows. 0: No cough, 1: One cough, 2: More than one cough, 3: Repeated coughs with lifting of the head

Settings and conduct

The study will be performed to evaluate the effect of dexmedetomidine on patients' cough after thyroidectomy. The study will be performed in the operating room of Imam Khomeini Hospital in Urmia by intervention method in two groups of 35 people as intervention and control. Blinding and randomization were not observed in the study.

Participants/Inclusion and exclusion criteria

Admission requirements: Candidate for thyroidectomy, age 18 to 68 years Withdrawal conditions: specific diseases such as cancer, smoking, any allergies to vasopressors or local anesthetics, systemic diseases such as cardiovascular, hepatic or renal and pulmonary diseases, including asthma.

Intervention groups

Intervention group: The intervention group consists of 35 people who will use dexmedetomidine during anesthesia.

Control group: includes 35 people who will not use dexmedetomidine during anesthesia.

Main outcome variables

Cough

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211209053338N1**
Registration date: **2021-12-31, 1400/10/10**
Registration timing: **prospective**

Last update: **2021-12-31, 1400/10/10**
Update count: **0**

Registration date

2021-12-31, 1400/10/10

Registrant information

Name
Sonya Mahmoodi Azar
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 44 3323 0739
Email address
mahmoodiaza.s@umsu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-01-05, 1400/10/15

Expected recruitment end date

2023-01-05, 1401/10/15

Actual recruitment start date

empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Assessment of dexmedetomidine effect on cough prevention after anesthesia in patinets undergoing thyroidectomy

Public title
The effect of dexmedetomidine on cough prevention after anesthesia in patients with thyroid surgery
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age 18 to 68 Candidate for thyroidectomy
Exclusion criteria:
Cancer Chemotherapy Smoking
Age
From **18 years** old to **68 years** old
Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **70**
Randomization (investigator's opinion)
N/A
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
Ethics committee of Urumie University of Medical Sciences
Street address
No. 1, Sero Ave.
City
Urmie
Province
West Azarbaijan
Postal code
5613874758

Approval date
2021-09-04, 1400/06/13
Ethics committee reference number
IR.UMSU.REC.1400.211

Health conditions studied

1

Description of health condition studied
thyroid disease
ICD-10 code
E07.9
ICD-10 code description
Disorder of thyroid, unspecified

Primary outcomes

1

Description
Cough
Timepoint
From the moment the patient regains consciousness until 15 minutes later
Method of measurement
Measurement will be through direct vision. The number of coughs will be counted. The severity of cough is as follows: 0: no cough, 1: one cough, 2: more than one cough, 3: recurrent coughs with lifting of the head

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: 35 patients will be candidates for thyroidectomy. In addition to routine medications for general anesthesia, these patients will receive 0.5 micrograms per kilogram of dexmedetomidine in the final 10 minutes of surgery.
Category
Treatment - Drugs

2

Description
Control group: will include 35 patients who are candidates for thyroidectomy. These patients will only receive routine medications for general anesthesia. There is no placebo in this study.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Imam Khomeini Hospital in Urmia

Full name of responsible person
دکتر سونیا محمودی آذر

Street address
No. 57, Homafar Ave

City
Urmia

Province
West Azarbaijan

Postal code
5613874123

Phone
+98 44 3323 0739

Email
meisamfooladi@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Oroumia University of Medical Sciences

Full name of responsible person
Dr. Saman Fooladi

Street address
No. 57, Homafar Ave

City
Urmia

Province
West Azarbaijan

Postal code
561387412

Phone
+98 44 3323 0739

Email
meisamfooladi@gmail.com

Grant name

Grant code / Reference number

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

Title of funding source
Oroumia 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
Oroumia University of Medical Sciences

Full name of responsible person
Dr. Sonya Mahmoodi Azar

Position
resident

Latest degree
Medical doctor

Other areas of specialty/work
Anesthesiology

Street address
No. 1, Ostadan Ave.

City
Urmia

Province
West Azarbaijan

Postal code
56123258745

Phone
+98 44 3323 0739

Email
mahmoodiazar.s@umsu.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Oroumia University of Medical Sciences

Full name of responsible person
Dr. Sonya Mahmoodi Azar

Position
resident

Latest degree
Medical doctor

Other areas of specialty/work
Anesthesiology

Street address
No. 1, Ostadan Ave

City
Urmia

Province
West Azarbaijan

Postal code
56138741235

Phone
+98 44 3323 0739

Email
mahmoodiazar.s@umsu.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Oroumia University of Medical Sciences

Full name of responsible person
Dr. Sonya Mahmoodi Azar

Position
resident

Latest degree
Medical doctor
Other areas of specialty/work
Anesthesiology
Street address
No. 1, Ostadan Ave
City
Urmia
Province
West Azarbaijan
Postal code
5687452369
Phone
+98 44 3323 0739
Email
mahmoodiazar.s@umsu.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
The questionnaires will be made available anonymously and with a file number.
When the data will become available and for how long
After completing the study
To whom data/document is available
University professors
Under which criteria data/document could be used
In order to find out how to work in SPSS file, anonymous questionnaires will only be available with file number.
From where data/document is obtainable
Contact Dr. Sonya Mahmoodi Azar
What processes are involved for a request to access data/document
Information is available after contacting Dr. Sonya Mahmoodi Azar and University approval
Comments