

Clinical Trial Protocol

Iranian Registry of Clinical Trials

29 Jun 2026

the comparison effect of propofol and sevoflurane on the QT interval prolongation in pediatrics undergoing cochlear implantation

Protocol summary

Summary

purpose : the comparison effect of propofol and sevoflurane on the QT interval prolongation in pediatrics undergoing cochlear implantation methods : in this randomized controlled clinical trial 64 patients aged 6 months to 18 years, candidate for cochlear implantation were enrolled . known case of jervell lange nielson syndrome , patients with any cardiac disease, ECG abnormality, electrolyte abnormality, usage of drugs which prolong the QT interval and family history of QT prolongation, were excluded for the study . 1 hour before entrance of the patients to the operating room midazolam was administered 0.5 - 0.75 mg/kg orally and 0.05 - 0.1 mg/kg intravenously . 12 leads ECG was applied and baseline strips were taken for all participants . fentanyl 2 ug/kg was administered premedication . using the random number table patients were divided to 2 groups ; group A who received sevoflurane with standard MAC induction and group B who received propofol (2.5 mg/kg) . 5 and 15 minutes after drug administration ECG was performed and evaluated for QT prolongation and other abnormalities between groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017082131487N2**

Registration date: **2017-10-16, 1396/07/24**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-10-16, 1396/07/24

Registrant information

Name

مهرداد Mesbah kiaei

Name of organization / entity

Iran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 912 346 5866

Email address

dr.mmesbah@gmail.com

Recruitment status

Recruitment complete

Funding source

iran medicine science university

Expected recruitment start date

2017-09-23, 1396/07/01

Expected recruitment end date

2017-12-22, 1396/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

the comparison effect of propofol and sevoflurane on the QT interval prolongation in pediatrics undergoing cochlear implantation

Public title

the comparison of ECG changes propofol and sevoflurane cochlear implantation

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria : patients aged 6 months to 18 years candidate for cochlear implantation . exclusion criteria: known case of jervell lange nielson syndrome , patients with any cardiac disease, ECG abnormality, electrolyte abnormality, usage of drugs which prolong the QT

interval and family history of QT prolongation .

Age

From **6 months** old to **18 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **64**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

random number table

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

iran university of medical sciences

Street address

iran university of medical sciences , hemmat highway

City

tehran

Postal code

Approval date

2017-05-06, 1396/02/16

Ethics committee reference number

IR.IUMS.REC1396.9311174019

Health conditions studied

1

Description of health condition studied

cochlear implantation

ICD-10 code

DISEASES O

ICD-10 code description

other specified diseases of inner ear(h83.8)

Primary outcomes

1

Description

QT INTERVAL

Timepoint

AFTER THE INDUCTION

Method of measurement

ECG MONITORING AND CALCULATED BY THE
CARDIOLOGIST

Secondary outcomes

1

Description

PROLONGET TP-E INTERVALL

Timepoint

5 AND 15 MINIUTE AFTER DRAG ADMINISTRATION

Method of measurement

ECG MONITORING AND CALCULATED BY CARDIOLOGIST

Intervention groups

1

Description

Intervention Group1:2.5mg/kg propofol for induction

Category

Treatment - Drugs

2

Description

Intervention Group2:sevofeloran with mac 8% for
induction

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

rasool akram hospital

Full name of responsible person

DR.reza safaeeian

Street address

sattar-khan avn

City

tehran

2

Recruitment center

Name of recruitment center

rasool akram hospital

Full name of responsible person

DR.reza safaeeian

Street address

sattar-khan avn

City

tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

iran university of medical sciences

Full name of responsible person

DR.alireza poornajafiand

Street address

firozgar haspital

City

tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

iran university of medical sciences

Proportion provided by this source**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

2

Sponsor

Name of organization / entity

iran university of medical sciences

Full name of responsible person

DR.alireza poornajafiand

Street address

firozgar haspital

City

tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

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Title of funding source

iran university of medical sciences

Proportion provided by this source**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

rasool akram hospital

Full name of responsible person

DR.reza safaeeian

Position

associate professor

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Full name of responsible person

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Position

associate professor

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tehran

Postal code**Phone**

00

Fax
Email
Web page address

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