

Clinical Trial Protocol

Iranian Registry of Clinical Trials

15 Jul 2026

Comparison of recovery time and complications during the use of Etomidate and Thiopental in children under the ECT

Protocol summary

Summary

Electroconvulsive therapy is noninvasive electrical stimulation of the brain which is resistant in the gold standard treatment for some psychiatric disorders such as MDD. Etomidate and Thiopental are such Intravenous anesthetic which are being used in this method. Choosing appropriate medicine is consider as a very important issue because of its effects on treatment duration , Seizure control , hemodynamic stability and reducing the recovery period. The objective of this survey is to compare the variation of heart rate and blood pressure, blood oxygenation, febrile convulsion, seizure induction and also recovery condition during and after electroconvulsive therapy. Also we want to investigate about the effects of electroconvulsive therapy on eliminating or reducing the Intensity of pain injection, headache, coughing, muscle aches, nausea, vomiting, myoclonus and laryngospasm during recovery after using thiopental and etomidate and Compare these two cure with together in AlZahra hospital. Research sample of this survey are referred patients of AlZahra psychiatric department to the ward at electric shock room . This study will be a randomized clinical trial without group controlling. Patients were divided into two same groups including 32 individuals by difference that we used Thiopental medicine in ones and Etomidate in the others.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016092826950N2**

Registration date: **2016-10-31, 1395/08/10**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-10-31, 1395/08/10

Registrant information

Name

Behzad Nazemroaya

Name of organization / entity

Isfahan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research of Isfahan University of Medical Sciences

Expected recruitment start date

2016-10-11, 1395/07/20

Expected recruitment end date

2017-03-10, 1395/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of recovery time and complications during the use of Etomidate and Thiopental in children under the ECT

Public title

The effect of the two drugs(Sodium Thiopental or Etomidate) duration and after ECT

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria for the study : All candidates receive Electroconvulsive therapy seizures , of both sexes , age under 18 years , physical status class (ASA I) ; criteria of inclusion: Addiction to alcohol and drugs , age 5 years and older than 18 years , the physical condition of class II patients (All) above , a history of seizures or epilepsy , brain injury or tumor exclusion criteria : cardio respiratory arrest , requiring intubation and cardiopulmonary resuscitation needs

Age

From **5 years** old to **18 years** old

Gender

Both

Phase

N/A

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

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Vice Chancellor for Research, Building4, Isfahan University Of Medical Sciences, Hezarjirib St.

City

Isfahan

Postal code

7346181746

Approval date

2016-09-05, 1395/06/15

Ethics committee reference number

IR.MUI.REC.3.426

Health conditions studied

1

Description of health condition studied

Sodium Thiopental

ICD-10 code

T41.1

ICD-10 code description

Poisoning:Intravenous anaesthetics

2

Description of health condition studied

Etomidate

ICD-10 code

T41.2

ICD-10 code description

Other and unspecified general anaesthetics

Primary outcomes

1

Description

Blood Pressure

Timepoint

Before injection At 1, 5 and 10 after the shock between the two

Method of measurement

mmhg with Manometer

2

Description

Pulse

Timepoint

Before injection At 1, 5 and 10 after the shock between the two

Method of measurement

Beat per minute with Pulse Oximeter

3

Description

O2 saturation

Timepoint

Before injection At 1, 5 and 10 after the shock between the two

Method of measurement

Percent with Pulse Oximeter

4

Description

Recovery Duration

Timepoint

From the end of seizure to full consciousness

Method of measurement

Minute with Timer

5

Description

Seizure Duration

Timepoint

From the start to the end of seizure

Method of measurement

Second with Timer

6

Description

Back to Breathe Spontaneously

Timepoint

From the end of seizure to respiration

Method of measurement

Second with Timer

Secondary outcomes

1

Description

Headache

Timepoint

After recovery

Method of measurement

Ask the patient

2

Description

Cough

Timepoint

After recovery

Method of measurement

Ask the patient

3

Description

Laryngospasm

Timepoint

After recovery

Method of measurement

Evaluation of patient such as breathing and o2 sat

4

Description

Nausea and Vomiting

Timepoint

After recovery

Method of measurement

Ask the patient

5

Description

Muscle Pain

Timepoint

After recovery

Method of measurement

Ask the patient

6

Description

Pain at injection site

Timepoint

During injection

Method of measurement

Ask the patient

7

Description

Myoclonus

Timepoint

From the time of injection until after seizure

Method of measurement

Observation of Complication

Intervention groups

1

Description

First group received A packages included Succinylcholine (0.5 mg/kg) and Sodium thiopental (2 mg/kg). Drugs inject IV and bolusly.

Category

Treatment - Drugs

2

Description

Second group received B packages included Succinylcholine (0.5 mg/kg) and Etomidate (0.1mg/kg). Drugs inject IV and bolusly

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Children Psychiatric Ward of Medical Center Al-Zahra

Full name of responsible person

Dr. Behzad Nazemroaya

Street address

Medical Center Al-Zahra, Blvd Sofeh, Shahid Keshvari Highway, Isfahan

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research of Isfahan University Of Medical Sciences

Full name of responsible person

Research Vice Chancellor

Street address

Vice Chancellor for Research, Building4, Isfahan University Of Medical Sciences, Hezarjirib St. Isfahan

City

Isfahan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for Research of Isfahan University Of
Medical Sciences

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

Name of organization / entity

Children Psychiatric Ward of Medical Center Al-Zahra

Full name of responsible person

Dr. Behzad Nazemroaya

Position

Assistant Professor/Faculty

Other areas of specialty/work

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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