# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

17 Sep 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

**Country**

Iran (Islamic Republic of)

**Phone**

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**Email address**

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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 (ASAI) ; criteria of inclusion: Addiction to alcohol and drugs , age 5 years and older than 18 years , the physical condition of class II patients (AII) 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**

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## Person responsible for scientific inquiries

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**Other areas of specialty/work**

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## Person responsible for updating data

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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*