

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of the incidence and severity of cognitive impairment after electroconvulsive therapy under general anesthesia in the two groups with remifentanyl- thiopental sodium thiopental - placebo in patients referred to ECT Center shafa of Rasht in 2013

Protocol summary

Summary

This prospective, randomized study aimed to compare the incidence and severity of cognitive impairment after electroconvulsive therapy under general anesthesia in the two groups with remifentanyl - thiopental sodium or placebo- sodium thiopental. This study is double blind. 120 patients, aged 18-60 years old with psychiatric disorders diagnosed by psychiatrists according to DSMIV-TR criteria and candidates for ECT enroll in the study. Exclusion criteria are emergency ECT; severe cognitive dysfunction prior to ECT; history of mental retardation; severe heart disease; history of previous ECT; ASA physical status III-IV; uncontrolled hypertension and needs to treat agitation after ECT. The patients randomly assigned into groups of 60 to receive remifentanyl 50 mic plus thiopental sodium (study group) or normal saline plus thiopental sodium (control group) in both the volume of 5 ml. Severity of cognitive impairment will assess by psychiatrists before ECT, 5 hours and 24 hours after electroconvulsive therapy with the test mini mental status exam (MMSE).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201306086280N2**
Registration date: **2013-06-12, 1392/03/22**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2013-06-12, 1392/03/22

Registrant information

Name

Mohammad Haghighi

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Guilan University of Medical Sciences

Expected recruitment start date

2013-06-22, 1392/04/01

Expected recruitment end date

2013-11-21, 1392/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the incidence and severity of cognitive impairment after electroconvulsive therapy under general anesthesia in the two groups with remifentanyl- thiopental sodium thiopental - placebo in patients referred to ECT Center shafa of Rasht in 2013

Public title

The effect of remifentanyl - thiopental sodium on cognitive impairment after electroconvulsive therapy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients with psychiatric disorders diagnosed by psychiatrists according to DSMIV-TR criteria; age between 18-60 years old; signing informed consent; ASA physical status I or II; ECT candidates for the first time. Exclusion criteria: emergency ECT; severe cognitive dysfunction prior to ECT; history of mental retardation; severe heart disease; history of previous ECT; ASA physical status III-IV; uncontrolled hypertension and needs to treat agitation after ECT.

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **120**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Guilan University of Medical Sciences, Research and Technology

Street address

shahid beheshti Highway - End of the Skyway - up Iran Radiator

City

rasht

Postal code

Approval date

2013-04-20, 1392/01/31

Ethics committee reference number

2920029709

Health conditions studied

1

Description of health condition studied

Patient with psychiatric disorder

ICD-10 code

F10-39

ICD-10 code description

Mental and behavioural disorders due to psychoactive substance use, Schizophrenia, schizotypal and delusional disorders, Mood [affective] disorders

Primary outcomes

1

Description

incidence of cognitive impairment after electroconvulsive therapy in general anesthesia with remifentani plus thiopental sodium

Timepoint

Before ECT, 5 hours and 24 hours after ECT

Method of measurement

By testing mini mental status exam (MMSE)

2

Description

severity of cognitive impairment after electroconvulsive therapy in general anesthesia with remifentani plus thiopental sodium

Timepoint

Before ECT, 5 hours and 24 hours after ECT

Method of measurement

By testing mini mental status exam (MMSE)

Secondary outcomes

1

Description

Blood pressure

Timepoint

Before induction of anesthesia, immediately after ECT, after entering the recovery

Method of measurement

By electronic sphygmomanometer in the ECT room

2

Description

Heart rate

Timepoint

Before induction of anesthesia, immediately after ECT, after entering the recovery

Method of measurement

By monitoring heart rate

Intervention groups

1

Description

Intervention group: remifentanil 50 mic plus thiopental sodium

Category

Treatment - Drugs

2

Description

Control group:normal salin plus thiopental sodium

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Shafa hospital

Full name of responsible person

Dr.mohammad haghghi

Street address

Shahid beheshti Kamarbandi, Khordad 15 street,
Heshmat crossroads

City

Rasht

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Guilan University of Medical Sciences,Research and
Technology

Full name of responsible person

Dr. Rasoul Tabari(MD)

Street address

Shahid Beheshti Highway, End of the Skyway, Above
iran radiator

City

Rasht

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Guilan University of Medical Sciences,Research and
Technology

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

Anesthesiology and Critical Care Research Centre

Full name of responsible person

Dr. Mohammad Haghghi

Position

Anesthesiologist, associate professor

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