Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effects of electroconvulsive therapy using ketamine and propofol as anesthetic agent on the improvement of depression in patients with major depressive disorder

Protocol summary

Summary

The purpose of this study is to examine the impact of anesthesia with combined Ketamine and Propofol on efficacy of electric shock in patients with major depressive disorder. 50 participants will be recruited from consecutive inpatients, diagnosed to have major depressive disorder by DSM-IV criteria, who were prescribed ECT by their clinicians. Patients undergo administration of either Ketamine (0.3 mg/kg) plus Atropine 0.5 mg (study) or saline plus Atropine 0.5 mg (control) always adjusted to a 2-ml volume according to the patient's group; Severity of depression will be assessed by the Hamilton Depression Rating Scale (HAM-D) (17-item) and immediate cognitive side effects will be assessed by measuring post –treatment reorientation time.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138811022935N2**
Registration date: **2010-09-11, 1389/06/20**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2010-09-11, 1389/06/20

Registrant information

Name

Farzin Rezaei

Name of organization / entity

Kurdistan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Kurdistan University of Medical Sciences

Expected recruitment start date

2010-10-02, 1389/07/10

Expected recruitment end date

2011-10-02, 1390/07/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of electroconvulsive therapy using ketamine and propofol as anesthetic agent on the improvement of depression in patients with major depressive disorder

Public title

Combined Ketamine and Propofol in electroconvulsive therapy of depression

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: diagnosis by Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (American Psychiatric Association, 2000), of major depressive disorder, age between 18 to 40 years old, Baseline Hamilton Depression Rating Scale (HAM-D) (17-item) score of at least 13, IQ>70 Exclusion criteria: drug or alcohol dependence, any contraindication of ECT, depressive disorder with psychotic features, history of

epilepsy, ASA class >2, history of cognitive disorder

Age
From **18 years** old to **40 years** old

Gender
Both

Phase
1-2

Groups that have been masked
No information

Sample size
Target sample size: **50**

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
Kurdistan University of Medical Sciences

Street address
Pasdaran Blvd

City
Sanandaj

Postal code

Approval date
2010-07-19, 1389/04/28

Ethics committee reference number
46963

Health conditions studied

1

Description of health condition studied
major depressive disorder

ICD-10 code
F33

ICD-10 code description
recurrent depressive disorder

Primary outcomes

1

Description
Severity of depression

Timepoint
baseline and one day after the third and the last ECT session and 2 weeks after the last session

Method of measurement
Hamiltion Depression Rating Scale 17-Item

Secondary outcomes

empty

Intervention groups

1

Description
ketamine (0.3mg/kg) plus Atropine 0.5 mg (study) for induction of anesthesia before injection of Propofol

Category
Treatment - Drugs

2

Description
Saline plus Atropine 0.5 mg for induction of anesthesia before injection of Propofol

Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Qhods Hospital

Full name of responsible person
Farzin Rezaei

Street address
Pasdaran Blvd- Qhods hospital - Sanandaj

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Kurdistan University of Medical Sciences

Full name of responsible person
Dr Ataollah Heydari

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Kurdistan university of Medical Sciences, Deputy of research, Pasdaran Blvd., Sanandaj

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Grant name

Grant code / Reference number

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

Title of funding source

Kurdistan 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

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Position

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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