

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 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

Country

Iran (Islamic Republic of)

Phone

+98 87 1356 1822

Email address

farrezaei@muk.ac.ir

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

Hamilton 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

City

Sanandaj

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kurdistan University of Medical Sciences

Full name of responsible person

Dr Ataollah Heydari

Street address

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

City

Sanandaj

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
Kurdistan University of Medical Sciences
Full name of responsible person
Dr Farzin Rezaei
Position
psychiatrist, Assistant Professor
Other areas of specialty/work
Street address
Qhods hospital, Pasdaran Blvd., Sanandaj
City
Sanandaj
Postal code
66135-63315
Phone
+98 87 1356 1822
Fax
+98 87 1666 1340
Email
farrezaei@muk.ac.ir; Farzin.Rezaie@uok.ac.ir ;
frrezaie@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Kurdistan University of Medical Sciences
Full name of responsible person
Dr Azad Maroufi
Position
Psychiatrist, Assistant Professor
Other areas of specialty/work
Street address
Qhods hospital, Pasdaran Blvd., Sanandaj

City
Sanandaj
Postal code
Phone
+98 87 1666 0025
Fax
Email
farrezaei@muk.ac.ir ;Farzin.Rezaie@uok.ac.ir
frrezaie@yahoo.com
Web page address

Person responsible for updating data

Contact

Name of organization / entity
Kurdistan University of Medical Sciences
Full name of responsible person
Dr Farzin Rezaei
Position
Psychiatrist- Assistant Professor
Other areas of specialty/work
Street address
Qhods hospital, Pasdaran Blvd., Sanandaj
City
Sanandaj
Postal code
66198-63315
Phone
+98 87 1356 1822
Fax
+98 87 1666 1340
Email
farrezaei@muk.ac.ir & Farzin.Rezaie@uok.ac.ir
frrezaie@yahoo.com
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