

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

The effect of single dose of ketamine injection in reducing suicidal ideation in type 1 bipolar disorder patients in the depressive phase

Protocol summary

Study aim

The effect of single dose of ketamine injection in reducing suicidal ideation in type 1 bipolar disorder patients in the depressive phase

Design

The study will be double blind and clinical trial. 124 patients will be randomly divided into 2 groups. The groups are parallel. The trial phase is 3.

Settings and conduct

Patients With type 1 bipolar disorder patients in the depressive phase in Amirkabir Hospital in Arak are divided into 4 groups by simple randomization with blocks. The study is double-blind in which outcome evaluator and data analyst and participant are kept blind.

Participants/Inclusion and exclusion criteria

Conditions for entering the study: patients with bipolar disorder type 1 in the depressive phase according to DSM5 criteria and having suicidal thoughts, not using drugs in the last one month, not receiving electric shocks in the last month and during the last hospitalization, 15 to 65 years old absence of mental retardation, absence of underlying disease, absence of history of stroke, seizures, brain tumor, dementia and being in the delirium phase, absence of history of head injury and loss of consciousness, absence of any drug and alcohol use in the past month Conditions for withdrawal from the study: lack of consent of the patient or the guardian to participate in the study, allergy to the drug

Intervention groups

In one group, intravenous ketamine (0.5 mg per kilogram of intravenous ketamine over 30 minutes) will be used, and in the other group, normal saline (500 ml of normal intravenous saline) will be used as a placebo. And the Beck questionnaire is evaluated before injection, 2 hours after injection, 24 hours after and 72 hours after injection.

Main outcome variables

Suicidal ideation score

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20141209020258N182**

Registration date: **2023-05-07, 1402/02/17**

Registration timing: **prospective**

Last update: **2023-05-07, 1402/02/17**

Update count: **0**

Registration date

2023-05-07, 1402/02/17

Registrant information

Name

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Name of organization / entity

Arak University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-05-20, 1402/02/30

Expected recruitment end date

2024-05-19, 1403/02/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of single dose of ketamine injection in reducing suicidal ideation in type 1 bipolar disorder patients in the depressive phase

Public title

The effect of single dose of ketamine injection in reducing suicidal ideation in type 1 bipolar disorder patients in the depressive phase

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Patients with bipolar disorder type 1 in the depressive phase according to DSM5 criteria and having suicidal thoughts No drug use in the last month. Not receiving electric shock during the last month and during recent hospitalization. 15 to 65 years No mental retardation Absence of underlying disease No history of stroke, seizure, brain tumor, dementia and being in delirium phase No history of head injury and loss of consciousness Not using all kinds of drugs and alcohol in the past month

Exclusion criteria:

Lack of consent of the patient or guardian to participate in the study Drug sensitivity

Age

From **15 years** old to **65 years** old

Gender

Both

Phase

2-3

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size

Target sample size: **124**

Randomization (investigator's opinion)

Randomized

Randomization description

Patients will be allocated into 2 groups using a permuted balanced block randomization method with the size of blocks 4. Random sequence will be generated by an epidemiologist by running an online program in sealed envelope website (<https://www.sealedenvelope.com/>). Random chain concealment is done by opaque envelope method.

Blinding (investigator's opinion)

Double blinded

Blinding description

This study will be double-blind, considering that both groups receive the drug in the form of serum and the form of injection in both groups is the same, the patients will not know what treatment they are receiving. Also, on this basis, in order to divide the patients, an envelope was used, which was determined based on the letters A (intervention group) and B (placebo group), and based on this, the patient and the doctor were blinded to the patient group. After obtaining the consent of the guardian, the patient enters the study and the medicine is prepared by the anesthesiologist and given to the

anesthesiologist and the injection is done under the supervision of the anesthesiologist and psychiatry resident. Based on this, the patients and the psychiatric assistant and the anesthesia technician are blind to the type of drug and the group of patients, but the anesthesiologist who prepares the drugs and provides them to the assistant and the technician for injection is unaware of the type of drugs.

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Approval date**

empty

Ethics committee reference number**2****Ethics committee****Name of ethics committee**

Ethics committee of Arak University of Medical Sciences

Street address

Ethics committee, Research center, Payambar Azam complex, Basij square, Sardasht, Arak

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Province

Markazi

Postal code

3848176941

Approval date

2023-01-09, 1401/10/19

Ethics committee reference number

IR.ARAKMU.REC.1401.311

Health conditions studied**1****Description of health condition studied**

type 1 bipolar disorder patients in the depressive phase

ICD-10 code

F06.31

ICD-10 code description

Mood disorder due to known physiological condition with depressive features

Primary outcomes

1

Description

Suicidal ideation

Timepoint

Start of the study, 2, 24 and 72 hours after the start of the study

Method of measurement

Beck Suicidal Ideation Scale

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: They will receive intravenous ketamine (0.5 mg for every kilogram of intravenous ketamine over 30 minutes).

Category

Treatment - Drugs

2

Description

Control group: normal saline (500 millileter of normal intravenous saline) will be used as a placebo.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Amirkabir hospital

Full name of responsible person

Dr Hamidreza Jamilian

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Sponsors / Funding sources

1

Sponsor

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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

Arak University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

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Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available