Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Jul 2026

Evaluation of the response rate in major depressive disorder after taking citalopram as a predictive factor base on motor cortex magnetic brain stimulation.

Protocol summary

Study aim
Determination of response rate in major depressive disorder after taking citalopram as a predictive factor base on motor cortex magnetic brain stimulation.

Design
Clinical trial ؛based on community and practical ؛phase 2 on 48 patients

Settings and conduct
48 patients with major depression confirmed by a psychiatrist in the Atiye Derakhshan Clinic. The patients will the Hamilton Depression Questionnaire after obtaining their written consent and assuring them of the confidentiality of their information.The motor evoked potential will be recorded using an electromyography device and using a TMS device, then they will be given a dose of citalopram, and then motor evoked potential will be checked again at a time interval of 2 hours. It will be registered and the drug treatment of patients with daily citalopram will continue until 4 weeks later and after that the Hamilton questionnaire will be filled again.

Participants/Inclusion and exclusion criteria
incluson :evaluation major depressive disorder Psychiatrist or Hamilton question between 18-65 Age Having informed satisfaction and motivation to cooperate No history of psychiatrist medication use in last two week exclusion :Unwillingness to continue cooperating in the study and not completing the questionnaire If a person has a specific acute neurological disorder at the same time

Intervention groups
48 patients with major depression in the age group of 18 to 65 years will be selected by a psychiatrist or by using the Hamilton and beck and their motor evoked potential will be measured an EMG device and using TMS will be recorded, then they will be given a dose of citalopram, and then their MEP will be checked and recorded again at 2-hour intervals, and patients will be treated with citalopram daily for 4 weeks. then the Hamilton questionnaire will be filled again

Main outcome variables
Motor evoked potential

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20100119003106N43**
Registration date: **2023-02-09, 1401/11/20**
Registration timing: **retrospective**

Last update: **2023-02-09, 1401/11/20**
Update count: **0**

Registration date
2023-02-09, 1401/11/20

Registrant information

Name
Farshad Hashemian

Name of organization / entity
Pharmaceutical Sciences Branch, Islamic Azad University (IAU)

Country
Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-01-01, 1401/10/11

Expected recruitment end date

2023-01-31, 1401/11/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the response rate in major depressive disorder after taking citalopram as a predictive factor base on motor cortex magnetic brain stimulation.

Public title

Evaluation of the response rate in major depressive disorder after taking citalopram as a predictive factor base on motor cortex magnetic brain stimulation.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Diagnosis of major depression by a psychiatrist or by using Hamilton's 24-question questionnaire Age 18-65 years old Having written informed consent and and incentive to cooperate and participate in completing the questionnaires provided by the researcher Not having a history of taking psychiatric drugs in the last 2 weeks

Exclusion criteria:

Unwillingness to continue cooperating in the study and not completing the questionnaire If the person is suffering from a specific neurological/psychological disorder at the same time

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **48**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tehran Islamic Azad University of Medical sciences

Street address

No. 99, Yakhchal street, Gholhak, Dr Shariati street

City

Tehran

Province

Tehran

Postal code

1941933111

Approval date

2022-09-26, 1401/07/04

Ethics committee reference number

IR.IAU.TMU.REC.1401.220

Health conditions studied

1

Description of health condition studied

Major Depressive Disorder

ICD-10 code

F33

ICD-10 code description

Major depressive disorder, recurrent

Primary outcomes

1

Description

Determining the MEP of patients through TMS

Timepoint

Before taking citalopram and 2 hours after taking citalopram

Method of measurement

Comparison of MEP of patients before and after taking citalopram

Secondary outcomes

1

Description

Hamilton and Beck depression questionnaire

Timepoint

Before taking citalopram and after taking citalopram

Method of measurement

Comparison of Hamilton and beck depression score of patients before and after taking citalopram

Intervention groups

1

Description

Intervention group :48 patients with major depression in the age group of 18 to 65 years will be selected by a

psychiatrist or by using the Hamilton and beck questionnaire and the amount of motor evoked potential will be measured for them before taking the drug.

Category

Treatment - Drugs

2

Description

Control group :Including 48 patients with major depression in the age group of 18 to 65 years approved by a psychiatrist will be selected using the Hamilton and beck questionnaire and the amount of motor evoked potential will be measured for them after taking 20mg citalopram drug.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Atiye mental health clinic

Full name of responsible person

Dr.Reza Rostami

Street address

No.23, Valinezhad St., Vanak

City

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1969713663

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Email

rezaros@gmail.com

Web page address

https://atiehclinic.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Dr.Farshad Hashemian

Street address

No. 99, Yasaman Alley., Yakhchal street., Gholhak., Dr Shariati street

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Grant name

Grant code / Reference number

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

No

Title of funding source

Islamic Azad University

Proportion provided by this source

1

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

Islamic Azad University

Full name of responsible person

Katayoun kiyanipour

Position

Pharm.D.candidate

Latest degree

A Level or less

Other areas of specialty/work

Medical Pharmacy

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Person responsible for scientific inquiries

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Full name of responsible person

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Position

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Latest degree

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Other areas of specialty/work

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Person responsible for updating data

Contact
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Full name of responsible person
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Position
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available
Title and more details about the data/document
Age and gender of patients' demographic information as well as the results and questionnaire containing patients' symptoms before and at the end of the treatment period can be shared by removing the individual characteristics of the patients.
When the data will become available and for how long
The release time of the documents and files is after the completion of the project and in the spring of 1402.
To whom data/document is available
Researchers working in academic and scientific institutions.
Under which criteria data/document could be used
By observing the ethical principles of information concealment, the documents and all the checks carried out on the information can be published.
From where data/document is obtainable
Katayun.kiyanipour@gmail.com
What processes are involved for a request to access data/document
Sending request E mail
Comments