

Clinical Trial Protocol

Iranian Registry of Clinical Trials

25 Jun 2026

Assessment of the effect of repetitive transcranial magnetic stimulation on right supplementary motor area in patients with Obsessive-Compulsive disorder by Event Related Potential

Protocol summary

Study aim

Assessment of the therapeutic effect of repetitive transcranial magnetic stimulation in obsessive compulsive patients.

Design

Among all the patients referred to psychiatry clinics of public hospitals and private services, 12 patients who have the criteria of obsessive compulsive disorder based on interview and achieve the score of 16 or more in Yale Brown test and fulfill the inclusion criteria are selected. All the participants get the same intervention of transcranial magnetic stimulation.

Settings and conduct

Before and after treatment intervention all the participants take the event related potential and psychological tests including Yale Brown and Beck depression and anxiety tests. Then the patients take 20 sessions of repetitive transcranial magnetic stimulation. Follow up tests will be taken.

Participants/Inclusion and exclusion criteria

The main inclusion criteria: diagnosis of obsessive compulsive disorder and getting at least 16 score in Yale Brown test despite a period of treatment. The main exclusion criteria: history of seizure. external metal material in body. being left handed and pregnant.

Intervention groups

20 sessions of repetitive transcranial magnetic stimulation on the right Supplementary Motor Area for all participants.

Main outcome variables

Repetitive transcranial magnetic stimulation could be an appropriate non invasive augmentation therapy suggested to OCD patients.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170309032972N2**

Registration date: **2018-05-20, 1397/02/30**

Registration timing: **retrospective**

Last update: **2018-05-20, 1397/02/30**

Update count: **0**

Registration date

2018-05-20, 1397/02/30

Registrant information

Name

afsaneh Mohammadzadeh

Name of organization / entity

assistant of psychiatry at MUMS

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

research unit of Mashhad university medical sciences

Expected recruitment start date

2017-11-06, 1396/08/15

Expected recruitment end date

2018-02-04, 1396/11/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Assessment of the effect of repetitive transcranial magnetic stimulation on right supplementary motor area in patients with Obsessive-Compulsive disorder by Event Related Potential

Public title

rTMS in OCD

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Diagnosis of obsessive compulsive disorder through psychiatric interview based on DSM 5 criteria and getting at least score 16 in Yale Brown Test recent use of an OCD treatment for at least 8 to 12 weeks with enough dosage and lack of appropriate response being right handed deliberate consent to participate in the study

Exclusion criteria:

suffering from any other major psychiatric disorder including Anxiety, depressive and psychotic disorders. suffering from any sever organic disorder history of any kind of seizure in the patient or his family using medications affecting electroencephalographic waves having implanted pace maker having fixed or portable metal prosthesis in the head, neck, chest or arm having arterial clipper being pregnant

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **12**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

ethics committee in medical researches

Street address

Mashhad University of Medical Sciences

Administration Center(Qoreishi Building), Daneshgah St., Mashhad, Iran

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Mashhad

Province

Razavi Khorasan

Postal code

91778-99191

Approval date

2016-12-21, 1395/10/01

Ethics committee reference number

IR.MUMS.fm.REC.1395.466

Health conditions studied

1

Description of health condition studied

obsessive compulsive disorder

ICD-10 code

F42

ICD-10 code description

The essential feature is recurrent obsessional thoughts or compulsive acts. Obsessional thoughts are ideas, images, or impulses that enter the patient's mind again and again in a stereotyped form. They are almost invariably distressing and the patient oft

Primary outcomes

1

Description

parameters of Event Related Potential

Timepoint

before and after intervention

Method of measurement

analysis of the data by the expert

Secondary outcomes

1

Description

obsessive compulsive symptoms

Timepoint

before and after the intervention - after the tenth session - 6 and 12 weeks after the intervention

Method of measurement

Yale Brown Test

2

Description

depression symptoms

Timepoint

before and after the intervention - after the tenth session - 6 and 12 weeks after the intervention

Method of measurement

Beck Depression Inventory

3

Description

anxiety symptoms

Timepoint

before and after the intervention - after the tenth session
- 6 and 12 weeks after the intervention

Method of measurement

Beck Anxiety Inventory

Intervention groups

1

Description

1- Event related Potential: before and after intervention of rTMS An event-related potential (ERP) is the measured brain response that is the direct result of a specific sensory, cognitive, or motor event. It is a stereotyped electrophysiologica

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Psychiatry clinic

Full name of responsible person

Afsaneh Mohammadzadeh

Street address

Ibn-e-Sina Hospital Bou ali square

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mashhad University of Medical Sciences Research Center

Full name of responsible person

Dr Mir Heydari

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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

Mashhad University of Medical Sciences Research Center

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

Psychiatry and Behavioral Sciences Research Center
Mashhad University of Medical Sciences Mash

Full name of responsible person

Afsaneh Mohammadzadeh

Position

Psychiatry assistant

Latest degree

Medical doctor

Other areas of specialty/work

Psychiatrics

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Person responsible for scientific inquiries

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Name of organization / entity

Psychiatry department Mashhad University of Medical Sciences Mashhad Iran

Full name of responsible person

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Position

Assistant professor of psychiatry

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