

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Evaluation of adjunctive therapy of seeds alkaloids of *Peganum harmala* in the treatment of mild to moderate depression

Protocol summary

Study aim

Evaluation of the *Peganum harmala* seed's alkaloids in mild-moderate depressive disorder

Design

A randomized (block randomization), blinded, placebo-controlled clinical trial with treatment (the alkaloids) group and 68 sample size. 1) The treatment group will receive hamala alkaloids and SSRIs, while 2) the placebo group will take fried bread and SSRIs for 6 weeks.

Settings and conduct

The capsules will be prepared in an opaque plastic container. Each container will consist of 42 hard gelatin capsules. The study was conducted in the outpatient Kasra Clinic, Karaj. Demographic characteristics of patients are registered at the start of the study. Evaluations include HAMD, and BDI scores are recorded on days 0, 28, and 42. Additionally, laboratory tests CBC, ALS, AST, and ALP will be performed at D0 and D7.

Participants/Inclusion and exclusion criteria

Inclusion criteria: the ability to read, understand, and sign the informed consent form and the study procedures; both genders; aged 18-65 years; without any previous diagnosis of other mental disorders such as bipolar disorder, psychosis, primary anxiety disorder, and substance abuse or dependence disorder; reporting the Hamilton Depression Rating Score (HAMD) score above 14; agreed to use suitable family planning methods during the study and three months afterward. Exclusion criteria: smoking; pregnancy; under treatment but SSRIs.

Intervention groups

Control group: Placebo which will receive fried bread in capsule form in addition to SSRIs. Intervention group: Harmal alkaloids which will receive alkaloids' fraction of *Peganum Harmala* seeds in addition to SSRIs.

Main outcome variables

Depressed mood; Feelings of guilt; Suicide; Insomnia (early, middle, and late insomnia); Work and interests; Psychomotor retardation; Psychomotor agitation; Anxiety, psychic; Anxiety, somatic.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170311033004N3**

Registration date: **2022-02-01, 1400/11/12**

Registration timing: **prospective**

Last update: **2022-02-01, 1400/11/12**

Update count: **0**

Registration date

2022-02-01, 1400/11/12

Registrant information

Name

Ali Razmi

Name of organization / entity

Academic Center for Education, Culture and Research

Country

Iran (Islamic Republic of)

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+98 26 3476 4015

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-04-03, 1401/01/14

Expected recruitment end date

2022-06-05, 1401/03/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of adjunctive therapy of seeds alkaloids of Peganum harmala in the treatment of mild to moderate depression

Public title

Effects of alkaloids of harmala seeds on depression

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

ability to read, understating and sign the informed consent form and the study procedures male or female aged 18-65 years without any previous diagnosis of other mental disorders such as bipolar disorder, psychosis, primary anxiety disorder, and substance abuse or dependence disorder reporting the Hamilton Depression Rating Score (HAMD) score above 14 agreed to use suitable family planning methods during the study and three months afterward non-smoking not being pregnant under only SSRIs antidepressant regimen

Exclusion criteria:

they have a current diagnosis of other mental disorders including bipolar disorder, psychosis, primary anxiety disorder, and substance abuse or dependence disorder pregnancy and breastfeeding taking antidepressant except for SSRIs, mood stabilizer, or antipsychotic drug chemotherapy or other medications known to produce mood changes sensitivity to harmala alkaloids emerging serious adverse effects with the alkaloids

Age

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

Gender

Both

Phase

2

Groups that have been masked

- Participant
- Care provider
- Outcome assessor

Sample size

Target sample size: **68**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization will be performed through block randomization (block of four). In Excel, we would arrange the Treatment and Control values systematically and then add a column with a block number. The third column would be our random numbers. Here is what it would look like. Then, we sort the numbers, by block and by random number within block.

Blinding (investigator's opinion)

Double blinded

Blinding description

Blinding and randomization will be carried out by an independent person unrelated to the study, while the investigator will administrate capsules and will assess the patients. Capsules will be packed and numbered serially using numbers generated by random number tables. They are the same in appearance, size, and color.

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Avicenna Research Institute

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Darakeh St., Shahid Beheshti University

City

Tehran

Province

Tehran

Postal code

1983969412

Approval date

2020-10-06, 1399/07/15

Ethics committee reference number

IR.ACECR.AVICENNA.REC.1399.020

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

Depression

ICD-10 code

F33.1

ICD-10 code description

Major depressive disorder, recurrent, moderate

Primary outcomes**1****Description**

Anhedonia, depressed mood, change in appetite, sleep, and suicidal ideations

Timepoint

Week 0, 4 and 6

Method of measurement

Hamilton Depression Rating Scale score

2**Description**

Depression

Timepoint

Week 0, 4 and 6

Method of measurement

Beck Depression Inventory

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: harmala alkaloids: Extraction is performed through routine methods for alkaloids extraction. Then a semi-automatic capsule filler was used to fill the harmaline capsules, prepared in an opaque plastic container. Each container consists of 42 hard gelatin capsules for six weeks of intake. Patients received either harmaline powder capsules (10 mg) per day, standardized to reference harmaline. Each capsule contained an equivalent 10 mg harmaline powder. All capsules were manufactured and packed in the Institute of Medicinal Plants (IMP), Alborz, Iran.

Category

Treatment - Drugs

2

Description

Control group: placebo: Placebo capsules, with the exact size, color, and appearance, were filled with fried bread (Roshd Co. Yazd, Iran). A semi-automatic capsule filler was used to fill the placebo capsules. Each container consists of 42 hard gelatin capsules for six weeks of intake. All capsules were manufactured and packed in the Institute of Medicinal Plants (IMP), Alborz, Iran.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Kasra polyclinic

Full name of responsible person

Vahdad Varzaghani

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Jahanshahr, Karaj, Kasra Polyclinic

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iranian academic center for education culture and research

Full name of responsible person

Gholamreza Esmaeeli Djavid

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Web page address

<http://acecr.ir/>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iranian academic center for education culture and research

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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Iranian academic center for education culture and research

Full name of responsible person

Ali Razmi

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Pharmacology

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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

Yes - There is a plan to make this available

Title and more details about the data/document

Demographic data, the total score of questionnaires, and laboratory test's results

When the data will become available and for how long

Immediately after publishing the data

To whom data/document is available

Researchers at medical universities

Under which criteria data/document could be used

Scores of the questionnaires and laboratory data are available for reviews and meta-analyses.

From where data/document is obtainable

Dr Ali Razmi assistant professor of the institute of medicinal plants is responsible for sharing data email: a.razmi@yahoo.com Tel: 00989123945632

What processes are involved for a request to access data/document

Applicants could send their requests through email. The data will be available after identification.

Comments