Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Jul 2026

Evaluation of effect of melatonin tablet administration or placebo on insomnia and daytime sleepiness in patients with obstructive sleep apnea and insomnia (COMISA) treated with continuous positive airway pressure: A randomized double-blind placebo-controlled trial

Protocol summary

Study aim

Evaluation of the effect of melatonin tablet administration on insomnia and daytime sleepiness in patients with COMISA

Design

A clinical trial with placebo control, parallel groups, double bind, randomized, phase 3 on 50 patients. randomization will prepared with online randomization generator

Settings and conduct

This clinical trial will be performed as a single-center trial in Emam Khomeini sleep clinic in Tehran. Patients in the melatonin group will receive 10 mg of melatonin 30-60 minutes before sleep with CPAP. In the placebo group, patients will receive the placebo tablets similar to melatonin tablets with CPAP 30-60 minutes before sleep with CPAP at night for one month.

Participants/Inclusion and exclusion criteria

Age: 18-65 years old Moderate- severe OSA (AHI ≥ 15 times per hour) Using CPAP for at least one month PSQI questionnaire score ≥ 5 Severe pulmonary disease (life expectancy less than 6 months) Severe heart disease (life expectance less than 6 months) Severe neurologic disease (example: dementia, Parkinson's disease) Major psychiatric disorder (drug users, bipolar disorder, psychiatric disease in 3 months ago Using drugs that interfere with sleeping and breathing Known allergic reactions to melatonin according to past allergic history Pregnancy or lactation Hypothyroidism Narcolepsy Restless leg syndrome Shift workers

Intervention groups

In the melatonin group, patients receive one 10 mg melatonin tablet, 30-60 minutes before sleep as long as using CPAP. In the control group, patients receive one placebo tablet before sleep for one month.

Main outcome variables

Change from baseline in PSQI; ESS; ISI; FOSQ-10 questionnaire in melatonin group in comparison with placebo

General information

Reason for update

Acronym

Comorbid Insomnia with Obstructive Sleep Apnea (COMISA)

IRCT registration information

IRCT registration number: **IRCT20220105053635N1**
Registration date: **2022-04-19, 1401/01/30**
Registration timing: **prospective**

Last update: **2022-04-19, 1401/01/30**
Update count: **0**

Registration date

2022-04-19, 1401/01/30

Registrant information

Name

Ṡhahideh Amini

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 6695 4709

Email address

aminishahideh@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-04-21, 1401/02/01

Expected recruitment end date
2023-01-20, 1401/10/30
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Evaluation of effect of melatonin tablet administration or placebo on insomnia and daytime sleepiness in patients with obstructive sleep apnea and insomnia (COMISA) treated with continuous positive airway pressure: A randomized double-blind placebo-controlled trial

Public title
Evaluation of melatonin on insomnia and daytime sleepiness associated with comisa
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age: 18-65 years old Moderate- severe OSA (apnea - hypopnea index ≥ 15 times per hours) Using CPAP for a minimum duration of one month PSQI questionnaire point should be ≥5 The patient declares his / her commitment to strictly follow the study instructions, participate in visits and take interventions.
Exclusion criteria:
Severe pulmonary disease (life expectancy less than 6 months) Severe heart disease (life expectance less than 6 months) Severe neurologic disease (example: dementia, Parkinson disease) Major psychiatric disorder (drug users, bipolar disorder, psychiatric disease in 3 months ago Using drugs which interfere with sleeping and breathing Known allergic reactions to melatonin according to past allergic history Pregnancy or lactation Hypothyroidism Narcolepsy Restless leg syndrome Shift workers
Age
From **18 years** old to **65 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **50**
Randomization (investigator's opinion)
Randomized
Randomization description
Eligible patients will enter one of the two rows of the trial in a one-to-one ratio (1: 1). Allocation will be done by permuted block randomization method. The size of 4 blocks will be selected. The allocation in each block will be simple randomization. Randomization will be done centrally and before the start of the study by a person who has no direct role in the entry of participants with a random number table. People who include patients in the study will not know the order of assignment. The order of allocation will be hidden from the researchers by thick, tightly packed dark envelopes. The medicine is given to patients by researchers. The drugs and placebo are provided to the researchers in the form of packages containing the study drug and the placebo for one month. The drugs are provided to researchers in packages of the same shape and only after determining the order of treatment. There is an expiration date on the package. If the expiration date of the package is less than 5 months at the time of entry into the study, the package will be returned to the allocation officer and the package with the appropriate expiration date will be given to the researcher in the same way. In the event of a serious adverse event for the participant, unblinding will be performed immediately for both the participant and the researcher. In the event of a severe adverse event in more than 12.5% of participants (at least 7), unblinding will be performed for the researcher for all participants, and if the adverse event is due to melatonin use and is unexpected for melatonin, It will be done for all participants as well.
Blinding (investigator's opinion)
Double blinded
Blinding description
The study will be double-blind which means the patients and researchers who include patients in the study will not know the order of assignment. The order of allocation will be hidden from the researchers by thick, tightly packed dark envelopes
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of drug sciences of Tehran University of Medical Sciences
Street address
Qods ave. Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
۱۴۱۷۶۱۴۴۱۱
Approval date
2021-12-11, 1400/09/20

Ethics committee reference number
IR.TUMS.TIPS.REC.1400.177

Health conditions studied

1

Description of health condition studied
Comorbid insomnia and obstructive sleep apnea
ICD-10 code
G47.33
ICD-10 code description
Obstructive sleep apnea (adult) (pediatric)

Primary outcomes

1

Description
Change from baseline in PSQI questionnaire score in melatonin group in comparison with placebo group.
Timepoint
Measurement of PSQI questionnaire score at the baseline and one month after initiation of treatment
Method of measurement
PSQI questionnaire

2

Description
Change from baseline in ESS questionnaire score in melatonin group in comparison with placebo group.
Timepoint
Measurement of ESS questionnaire score at the baseline and one month after initiation of treatment
Method of measurement
ESS questionnaire

3

Description
Change from baseline in ISI questionnaire score in melatonin group in comparison with the placebo group.
Timepoint
Measurement of ISI questionnaire score at the baseline and one month after initiation of treatment
Method of measurement
ISI questionnaire

4

Description
Change from baseline in FOSQ-10 questionnaire score in melatonin group in comparison with the placebo group.
Timepoint
Measurement ofFOSQ-10 questionnaire score at the baseline and one month after initiation of treatment
Method of measurement
FOSQ-10 questionnaire

Secondary outcomes

1

Description
change from baseline in CPAP uses duration in hours in melatonin group in comparison with placebo
Timepoint
CPAP uses duration in hours at the baseline and one month after intervention
Method of measurement
CPAP device information

2

Description
change from baseline in CPAP uses duration in number of nights in one month in melatonin group in comparison with placebo
Timepoint
change from baseline in CPAP uses duration in number of nights in melatonin group in comparison with placebo
Method of measurement
CPAP device information

Intervention groups

1

Description
Intervention group: 10 mg melatonin tablets, one tablet before sleep for 30 days. The tablets were supplied from the jalinus factory
Category
Treatment - Drugs

2

Description
Control group: placebo tablets, one tablet before sleep for 30 days. The tablets supplied from jalinus factory
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Emam Khomeini hospital sleep clinic
Full name of responsible person
Tahereh Madani motlaq
Street address
Gharib street,Keshavarz street
City
Tehran
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Postal code
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Phone

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Email

tmotlaq1994@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Prescribing and rational use of medicine research center

Full name of responsible person

Dr. Kheirollah Gholami

Street address

North kheradmand avenue, Karimkhanzand street, Hafte tir Square

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Tehran

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Phone

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Fax

Email

Rcrud@tums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Prescribing and rational use of medicine 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

Tehran University of Medical Sciences

Full name of responsible person

Dr. Shahideh Amini

Position

Associate Professor

Latest degree

Subspecialist

Other areas of specialty/work

Pharmacotherapy, ICU fellowship

Street address

16 azar

City

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Province

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Dr. Shahideh Amini

Position

Associated Professor

Latest degree

Subspecialist

Other areas of specialty/work

Pharmacotherapy, ICU fellowship

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Person responsible for updating data

Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Dr. Tahereh Madani motlaq

Position

Resident

Latest degree

Specialist

Other areas of specialty/work

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City

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Province

Tehran

Postal code

۱۴۱۷۶۱۴۴۱۱

Phone

00982164120

Email

tmotlaq1994@yahoo.com

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
No - There is not 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
All of the individual participant data collected during the trial, after deidentification
When the data will become available and for how long
Immediately after publication. No end date.
To whom data/document is available
Anyone who wishes to access the data.
Under which criteria data/document could be used
Any purpose.
From where data/document is obtainable
Data are available indefinitely at (link to be included)
What processes are involved for a request to access data/document
Data are available indefinitely at (link to be included)
Comments