Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparison of the effect of marshmallow and eucalyptus nebulizer on cough intensity among patients with COVID-19 disease

Protocol summary

Study aim
Comparison of the effect of marshmallow and eucalyptus nebulizer on cough intensity among patients with COVID-19 disease

Design
Three-group, randomized, phase two clinical trial on 45 patients. First, the available samples are selected and then people will be randomly divided into three groups: intervention 1, intervention 2 and control.

Settings and conduct
The place of the study: COVID-19 Patients' ward in Allameh Behlool Gonabadi Hospital; Patients: who is affected by COVID-19 disease in Respiratory Phase; There is no blinding in the study

Participants/Inclusion and exclusion criteria
Inclusion criteria: Willingness to participate in the study; Hospitalized in COVID-19 ward of Allameh Behlool Gonabadi Hospital; Definite COVID-19 disease (PCR test positive); Cough and approval by the treating physician; Having almost similar cardex by all patients; Being in the respiratory phase of the disease، Criteria for not entering: Have a history of allergies to any herbal medicine; Having a history of underlying respiratory disease; Having an underlying disease that causes a reaction to herbal medicines

Intervention groups
Intervention group 1: Marshmallow nebulizer 40 mg equivalent to 1 cc with 5 cc of normal saline for 15 minutes once a day with a special nebulizer mask; Intervention group 2: Eucalyptus plant nebulizer 2% (pure eucalyptus globulus product of Zardband company) 4 cc in 5 cc of normal saline for 15 minutes once a day with a special nebulizer mask; The control group performed routine interventions.

Main outcome variables
Cough intensity

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20190622043968N2**
Registration date: **2021-12-29, 1400/10/08**
Registration timing: **registered_while_recruiting**

Last update: **2021-12-29, 1400/10/08**
Update count: **0**

Registration date
2021-12-29, 1400/10/08

Registrant information
Name
Maryam Moradi
Name of organization / entity
Country
Iran (Islamic Republic of)
Phone
+98 51 5652 5792
Email address
moradi.mf69@gmail.com

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2021-11-22, 1400/09/01
Expected recruitment end date
2022-03-15, 1400/12/24
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title

Comparison of the effect of marshmallow and eucalyptus nebulizer on cough intensity among patients with COVID-19 disease

Public title
The effect of marshmallow and eucalyptus nebulizer on cough intensity in patients
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Willingness to participate in the study Hospitalized in COVID-19 ward of Allameh Behlool Gonabadi Hospital Definite COVID-19 disease (PCR test positive) Cough and approval by the treating physician Having almost similar cardex by all patients Being in the respiratory phase of the disease
Exclusion criteria:
Having a history of allergy to any herbal medicine Having a history of underlying respiratory disease Having an underlying disease that causes a reaction to herbal medicines
Age
From **18 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant

Sample size
Target sample size: **45**
Randomization (investigator's opinion)
Randomized
Randomization description
Samples will be selected from patients admitted to Covid ward by available sampling and assigned to three groups of intervention (A), intervention (B) and control group (C) by block randomized randomization method (numerical six blocks).
Blinding (investigator's opinion)
Single blinded
Blinding description
Patients participating in the study will not know about the intervention group and the drug used.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Gonabad University of Medical Sciences
Street address
Research Center for Social Determinants of Health, Gonabad University of Medical Sciences, Next to the Asian Road
City
Gonabad
Province
Razavi Khorasan
Postal code
۹۶۹۱۷۹۳۷۱۸
Approval date
2021-10-23, 1400/08/01
Ethics committee reference number
IR.GMU.REC.1400.095

Health conditions studied

1

Description of health condition studied
Cough intensity in patients with COVID-19 disease
ICD-10 code
R05
ICD-10 code description
Cough

Primary outcomes

1

Description
Severity of cough in patients with COVID-19 disease
Timepoint
Before the intervention, then once a day for two hours after the intervention until the end of the hospitalization period
Method of measurement
Counting the number of coughs based on Visual Analogue Scale (VAS)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: Marshmallow, Marshmallow nebulizer 40 mg equivalent to 1 cc with 5 cc of normal saline for 15 minutes with a special nebulizer mask once a day.
Category
Treatment - Drugs

2

Description
Intervention group 2: Eucalyptus plant, nebulizer 2%

eucalyptus plant with 5 cc of normal saline for 15 minutes once a day with a special nebulizer mask.

Category
Treatment - Drugs

3

Description
Control group: routine interventions

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Allameh Behlool Gonabadi Hospital

Full name of responsible person
Maryam Moradi

Street address
Allameh Behoul Gonabadi Hospital; Parstar blvd; Saadi street

City
Gonabad

Province
Razavi Khorasan

Postal code
۹۷۸۵۲_۹۶۹۱۷

Phone
+98 51 5723 6832

Email
moradi.mf69@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Gonabad University of Medical Sciences

Full name of responsible person
Dr. Shahla Khosravan

Street address
Research Center for Social Determinants of Health, Gonabad University of Medical Sciences, Next to the Asian Road

City
Gonabad

Province
Razavi Khorasan

Postal code
۹۶۹۱۷۹۳۷۱۸

Phone
+98 51 5722 9025

Email
moradi.mf69@gmail.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
Vice Chancellor for Research and Technology of Gonabad 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
Gonabad University of Medical Sciences

Full name of responsible person
Maryam Moradi

Position
Instructor

Latest degree
Master

Other areas of specialty/work
Epidemiology

Street address
Vice Chancellor for Research; Gonabad University of Medical Sciences; Next to the Asian Road

City
Gonabad

Province
Razavi Khorasan

Postal code
۹۶۹۱۷۹۳۷۱۸

Phone
+98 51 5722 9025

Email
moradi.mf69@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Gonabad University of Medical Sciences

Full name of responsible person
Maryam Moradi

Position
Instructor

Latest degree
Master

Other areas of specialty/work
Epidemiology

Street address
Research Center for Social Determinants of Health, Gonabad University of Medical Sciences, Next to the Asian Road

City

Gonabad

Province

Razavi Khorasan

Postal code

۹۶۹۱۷۹۳۷۱۸

Phone

+98 51 5722 9025

Email

moradi.mf69@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Gonabad University of Medical Sciences

Full name of responsible person

Maryam Moradi

Position

Instructor

Latest degree

Master

Other areas of specialty/work

Epidemiology

Street address

Khorasan Razavi - Gonabad, Asian Roadside, Vice Chancellor for Research and Technology Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

۹۶۹۱۷۹۳۷۱۸

Phone

+98 51 5722 9025

Email

moradi.mf69@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Due to the observance of ethics in research, confidentiality of information as well as university rules, raw data files will not be provided to other researchers.

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

Not applicable

Data Dictionary

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