Clinical Trial Protocol
Iranian Registry of Clinical Trials

31 May 2026

The effect of cupping therapy on blood oxygen level in patients with coronavirus 2 (SARS-CoV-2) infection with pulmonary involvement

Protocol summary

Study aim
Evaluation of the therapeutic effect of cupping on pulmonary symptoms in patients with Covid-19

Design
Clinical trial with control group, with parallel groups, not blind, randomized, phase 2 on 55 patients. 68 packets containing codes 0001 to 0055 were used for randomization. Then, by selecting one and having the selected code and using the output table of Block randomization statistical software, it is determined which group the patient is in the intervention or control group.

Settings and conduct
The project site is Booalisina Hospital in Qazvin and the study will be conducted as a randomized clinical trial.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Patients 18 to 65 years old, patient consent to participate in the project, presence of clinical criteria, and PCR test positive Exclusion criteria: having a history of coagulation disease, obesity, deep vein thrombosis, vertebral or herniated disc fracture, patients during pregnancy, lactation, and menstruation, the presence of an open wound at the site of the cupping

Intervention groups
The intervention group, in addition to receiving the prescribed drugs for the treatment of Covid-19 disease, receives the posterior thoracic cupping for 15 to 20 minutes daily for 2 weeks. The control group receives only the prescribed drugs for the treatment of Covid-19 disease according to the protocol of the Ministry of Health.

Main outcome variables
Arterial blood oxygen saturation, muscle pain, headache, chest pain, and the number and severity of cough, PLT, Hb, RDW, WBC counts, Lymphocyte percentage, Neutrophil Percentage, CRP, ESR, LDH, BS, Na, K, Cr, BUN and patients' temperature and blood pressure

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20210515051296N1**
Registration date: **2021-07-11, 1400/04/20**
Registration timing: **prospective**

Last update: **2021-07-11, 1400/04/20**
Update count: **0**

Registration date
2021-07-11, 1400/04/20

Registrant information
Name
Mahyar Sedighi
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Iran (Islamic Republic of)
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Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2021-07-21, 1400/04/30
Expected recruitment end date
2021-11-21, 1400/08/30
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title

The effect of cupping therapy on blood oxygen level in patients with coronavirus 2 (SARS-CoV-2) infection with pulmonary involvement

Public title
Effect of cupping on pulmonary symptoms of COVID-19
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients 18 to 65 years Resident of Qazvin Willingness to participate in the research project and complete the consent form Presence of typical evidence on lung CT-Scan or positive specific RT-PCR test from oropharyngeal secretions Presence of clinical criteria for hospitalization (fever above 38 ° C or severe cough or shortness of breath or respiratory rate greater than 24 per minute or oxygen saturation less than 93%)
Exclusion criteria:
Having a history of coagulation diseases, obesity, deep vein thrombosis Have a history of vertebral fracture or disc herniation Patients during pregnancy, lactation, and menstruation Patients with heart failure Patients with chronic renal failure cancer patients Patients with defective immune system or Patients receiving corticosteroids Existence of open wound at the site of cupping
Age
From **18 years** old to **65 years** old
Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **55**
Randomization (investigator's opinion)
Randomized
Randomization description
Before intervention, each patient selects one of the 55 envelopes that contain the codes 001 to 055, then by having the selected code and using the output table of Block randomization statistical software, it is determined the patient in which group: intervention or controls.
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Qazvin University of Medical Sciences
Street address
Qazvin University of Medical Sciences, Shahid Bahonar Boulevard, Qazvin, Iran
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Qazvin
Province
Qazvin
Postal code
3416899198
Approval date
2021-02-08, 1399/11/20
Ethics committee reference number
IR.QUMS.REC.1399.469

Health conditions studied

1

Description of health condition studied
COVID-19
ICD-10 code
U07.1
ICD-10 code description
Probable COVID-19

Primary outcomes

1

Description
Arterial blood oxygen saturation
Timepoint
At the beginning of the study (before the intervention) and the first to fourteenth days during cupping therapy
Method of measurement
Pulse oximetry

Secondary outcomes

1

Description
Muscular pain
Timepoint
At the beginning of the study (before the intervention) and then daily for 14 days from the beginning of cupping therapy to the end of cupping therapy
Method of measurement
By asking the patient and the Visual Analog Scale (VAS) score

2

Description
Headache
Timepoint
At the beginning of the study (before the intervention)

and then daily for 14 days from the beginning of cupping therapy to the end of cupping therapy

Method of measurement

By asking the patient and the Visual Analog Scale (VAS) score

3

Description

Chest pain

Timepoint

At the beginning of the study (before the intervention) and then daily for 14 days from the beginning of cupping therapy to the end of cupping therapy

Method of measurement

By asking the patient and the Visual Analog Scale (VAS) score

4

Description

Number and severity of cough

Timepoint

At the beginning of the study (before the intervention) and then daily for 14 days from the beginning of cupping therapy to the end of cupping therapy

Method of measurement

By asking the patient and the Visual Analog Scale (VAS) score

5

Description

Hemoglobin

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

6

Description

ESR

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

Sed rate device

7

Description

LDH

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

Device of utoanalyser

8

Description

RDW

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

9

Description

Platelet

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

10

Description

WBC count

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

11

Description

Lymphocyte Percentage

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

12

Description

Neutrophil Percentage

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

CBC test

13

Description

CRP

Timepoint

At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days

Method of measurement

Agglutination kit

14

Description
Na
Timepoint
At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days
Method of measurement
Flame photometer

15

Description
K
Timepoint
At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days
Method of measurement
Flame photometer

16

Description
Blood Suger
Timepoint
At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days
Method of measurement
Device of utoanalyser

17

Description
BUN
Timepoint
At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days
Method of measurement
Device of utoanalyser

18

Description
Creatinin
Timepoint
At the beginning of the study (before the intervention) and every other day for 14 days from the beginning of cupping therapy to the end of cupping therapy for 7 days
Method of measurement
Device of utoanalyser

Intervention groups

1

Description
Intervention group: Patients in this group receive the treatment of COVID-19 according to the protocol of the Ministry of Health, in addition, they should receive cupping therapy using special disposable plastic cups for cupping therapy, for each patient, for 14 days, once a day for 15 to 20 minutes in the back of the chest.
Category
Treatment - Devices

2

Description
Control group: The control group will be received only the prescribed medications for the treatment of COVID-19 according to the protocol of the Ministry of Health.
Category
Treatment - Devices

Recruitment centers

1

Recruitment center
Name of recruitment center
Boali Sina hospital
Full name of responsible person
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
Qazvin 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
Qazvin University of Medical Sciences
Full name of responsible person
Mahyar Seddighi
Position
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Latest degree
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Person responsible for updating data

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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
There is no more information.
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available