Clinical Trial Protocol
Iranian Registry of Clinical Trials

19 Jun 2026

Effect of nanocurcumin supplementation on the severity of symptoms and length of hospital stay in patients with COVID-19

Protocol summary

Study aim

The aim of this study is to determine the effect of nanocurcumin supplementation on serum level of hs-CRP, the severity of symptoms and length of hospital stay in patients with COVID-19.

Design

The present study is a parallel randomized clinical trial with a control group.

Settings and conduct

Patients will be randomly divided to two groups of 24: intervention group (receiving nanocurcumin supplement) and control group (receiving placebo). Height, weight, and waist circumference will be measured and questionnaires for severity of infection symptoms of upper and lower respiratory tract will be filled out. Ten milliliter fasting blood will be taken from all patients at the beginning and end of the intervention.

Participants/Inclusion and exclusion criteria

Patients aged 30 to 70 years with confirmation of COVID-19 (having a positive PCR test or involved lung CT-scan) who do not require ICU admission will be included in the study. Patients with a history of chemotherapy, organ transplants, malignancies, dialysis, CABG, liver failure, HIV, heart attack and stroke in the past 3 months, uncontrolled diabetes, known food allergies, and people with BMI over 40 and pregnant and lactating women will not be included in the study.

Intervention groups

The intervention group will receive 4 capsules daily, each containing 40 mg of nanocurcumin, and the control group will receive 4 placebo capsules daily, which is completely similar to the nanocurcumin supplement, for 6 days.

Main outcome variables

hs-CRP, recovery percentage, percentage of oxygen saturation, severity of infection symptoms of upper and lower respiratory tract, CBC

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20131125015536N13**
Registration date: **2020-10-03, 1399/07/12**
Registration timing: **registered_while_recruiting**

Last update: **2020-10-03, 1399/07/12**
Update count: **0**

Registration date

2020-10-03, 1399/07/12

Registrant information

Name
Mohammad Javad Hosseinzadeh
Name of organization / entity
School of Nutritional Sciences and Dietetics, TUMS
Country
Iran (Islamic Republic of)
Phone
+98 21 8899 3059
Email address
mhosseinzadeh@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-21, 1399/03/01

Expected recruitment end date

2020-12-20, 1399/09/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Effect of nanocurcumin supplementation on the severity of symptoms and length of hospital stay in patients with COVID-19

Public title
Assessment of the effect of nanocurcumin supplement in patients with COVID-19

Purpose
Supportive

Inclusion/Exclusion criteria

Inclusion criteria:
Confirmation of Covid-19 by positive PCR test or lung scan Admission to hospital Corona wards other than ICU Filling out the informed consent form by the patient or the patient's first-degree relatives

Exclusion criteria:
Chemotherapy People living with HIV History of heart attack and stroke in the last 3 months History of CABG Dialysis patients Transplantation of body organs Pregnancy and lactation People with BMI above 40 Known food allergies Having any liver failure Malignancies Uncontrolled Diabetes (A1c>7.5)

Age
From **30 years** old to **70 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Care provider
- Outcome assessor

Sample size
Target sample size: **48**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomization is done by permuted block method. First, all possible quadruple blocks are considered and a number is assigned to each of them. Then, using a table of random numbers and the number assigned to each block, a random sequence is determined. Eligible individuals included in the study are placed in the intervention or control group according to the sequence determined based on randomization.

Blinding (investigator's opinion)
Double blinded

Blinding description
In order to keeping patients, clinical caregivers, and the outcome assessor blind, the placebo will be prepared of the same color and shape as the supplement so that no one could distinguish the supplement from the placebo. The main researcher, who is not in direct contact with patients, is the only person who is not blind and pours supplements and placebos into exactly the same cans, specifies the cans with a three-digit number in no particular order and gives the cans to the outcome assessor, who is responsible for entering patients into the study and giving them the supplements. The randomization sequence will be kept by the main researcher, and he/she will inform the outcome assessor that which can (based on the three-digit code) should be given to the next patient. In this way, the outcome assessor is not able to interfere with the order of patients' entering and will be completely blind to the contents of the can that should be given to the next patient.

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee on Research, Research and Technology Department of Tehran University of Medical Sci

Street address
Floor 6, Central Organization of University, corner of Qods St., Keshavarz Blvd.

City
Tehran

Province
Tehran

Postal code
-

Approval date
2020-04-26, 1399/02/07

Ethics committee reference number
IR.TUMS.VCR.REC.1399.28

Health conditions studied

1

Description of health condition studied
COVID-19

ICD-10 code
U07.1

ICD-10 code description
Coronavirus infection, unspecified

Primary outcomes

1

Description
hs-CRP

Timepoint
Before and after 6 days of supplementation

Method of measurement
ELISA

2

Description
Percentage of recovery
Timepoint
Before and after 6 days of supplementation
Method of measurement
CT scan of the lungs

Secondary outcomes

1

Description
Percentage of oxygen saturation
Timepoint
Before the intervention and then daily until discharge
Method of measurement
Pulse oximeter

2

Description
Severity of infection symptoms of upper and lower respiratory tract
Timepoint
Before the intervention and then daily during the supplementation period
Method of measurement
Questionnaire

3

Description
Complete Blood Count
Timepoint
Before and after 6 days of supplementation
Method of measurement
Automated cell count

Intervention groups

1

Description
Intervention group: People in the intervention group will receive nanocurcumin supplement at a dose of 160 mg per day for 6 days. Curcumin is a natural polyphenolic antioxidant responsible for the turmeric yellow color. Nanocurcumin supplements are produced in the form of 40 mg capsules by Exir Nano Sina Company, and patients will receive 4 supplements orally (every 12 hours 2 capsules) for 6 days in addition to the routine treatment,.
Category
Rehabilitation

2

Description
Control group: People in the control group are given placebo capsules that are completely similar to nanocurcumin supplements in terms of shape and color and are asked to take 4 placebo capsules daily (every 12 hours 2 capsules) for 6 days.
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Shariati Hospital
Full name of responsible person
Neda Alijani
Street address
Shariati Hospital, Jalal Al-Ahmad Intersection, North Kargar St.
City
Tehran
Province
Tehran
Postal code
1411713135
Phone
+98 21 8490 1000
Fax
+98 21 8863 3039
Email
shariatihosp@tums.ac.ir
Web page address
http://shariati.tums.ac.ir/#

2

Recruitment center
Name of recruitment center
Ziaian Hospital
Full name of responsible person
Saied Reza Jamali Moghadam
Street address
Ziaian Medical Center, Abuzar Square, Qapan Crossroads, Qazvin St.
City
Tehran
Province
Tehran
Postal code
1366736511
Phone
+98 21 5517 6810
Email
ziaeian@tums.ac.ir
Web page address
https://ziaeian.tums.ac.ir/

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tehran University of Medical Sciences

Full name of responsible person
Research and Technology Department of University
Street address
Floor 6, Central Organization of University, corner of Qods St., Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
-
Phone
+98 21 8163 3698
Email
tumspr@tums.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Tehran 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
Tehran University of Medical Sciences
Full name of responsible person
Mohammad Javad Hossein Zadeh
Position
Professor
Latest degree
Ph.D.
Other areas of specialty/work
Nutrition
Street address
School of Nutritional Sciences and Dietetics, No. 44, Hodjat doost Alley, Naderi St., Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
-
Phone
+98 21 8895 5975
Email
mhosseinzadeh@tums.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Mohammad Javad Hossein Zadeh
Position
Professor
Latest degree
Ph.D.
Other areas of specialty/work
Nutrition
Street address
School of Nutritional Sciences and Dietetics, No. 44, Hodjat doost Alley, Naderi St., Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
-
Phone
+98 21 8895 5975
Email
mhosseinzadeh@tums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Fatemeh Taheri
Position
Ph.D student
Latest degree
Master
Other areas of specialty/work
Biochemistry
Street address
School of Nutritional Sciences and Dietetics, No. 44, Hodjat doost Alley, Naderi St., Keshavarz Blvd.
City
Tehran
Province
Tehran
Postal code
-
Phone
+98 21 8895 5975
Email
f.taheri6474@gmail.com

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