Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Evaluation the effect of captopril on definitive patients with COVID-19(second phase)

Protocol summary

Study aim
Determining the interventional effect of captopril in the treatment of definitive patients with COVID-19 and its effect on pneumonia manifestations and clinical and laboratory symptoms of patients

Design
Clinical trial with control group, parallel, single blind, phase 3 on 40 patients, simple randomization method using closed door envelope

Settings and conduct
This study is performed with single blind (Participating patients) in the corona ward of Imam Reza and Ghaem Hospital in Mashhad on patients with COVID-19 pneumonia. Eligible patients with the same diet and underlying disease are divided into control and intervention groups after obtaining consent. Captopril treatment is performed for 14 days. After 14 days, the variables will be evaluated and the two groups will be compared.

Participants/Inclusion and exclusion criteria
Patients with Covoid 19 admitted with eligibility. Inclusion criteria: Positive pcr test Exclusion criteria: pregnant or lactating, hereditary angioedema, psoriasis, NSAID use

Intervention groups
In this study, patients with PCR confirmed COVID-19 are examined. First, patients who meet the inclusion criteria are selected. After obtaining the patient's consent, complement therapy with captopril is started. The recommended dose for this supplement is one 25 mg tablet every 8 hours for two weeks from the start of treatment. It has been tried that patients are on the same medication regimen and are similar in terms of variables such as age and underlying disease. Minimize the confounding effect of these variables.

Main outcome variables
Oxygen saturation rate; length of hospitalization; mortality rate

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20140824018915N10**
Registration date: **2021-09-23, 1400/07/01**
Registration timing: **registered_while_recruiting**

Last update: **2021-09-23, 1400/07/01**
Update count: **0**

Registration date
2021-09-23, 1400/07/01

Registrant information

Name
Mousalreza Hosseini

Name of organization / entity
Mashhad University Of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 80 1274 2513

Email address
hoseinimr@mums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-09-21, 1400/06/30

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
Evaluation the effect of captopril on definitive patients with COVID-19(second phase)

Public title
The effect of captopril on definitive patients with coronavirus pneumonia
Purpose
Supportive
Inclusion/Exclusion criteria
Inclusion criteria:
COVID-19 disease confirmed by imaging (HRCT) or Real Time PCR
Exclusion criteria:
Pregnancy Breastfeeding Bilateral renal artery stenosis Hereditary angioedema Psoriasis NSAID consumtion Patients who have been taking Captopril before undergoing Covid due to other underlying diseases (such as hypertension, heart failure, myocardial infarction, etc.) will not be included in the study. Patients in need of ICU admission The patient participates in any other clinical trial on the corpus associated with therapeutic intervention. (Before entering this study)
Age
No age limit
Gender
Both

Phase
2-3
Groups that have been masked

- Participant

Sample size
Target sample size: **400**
Randomization (investigator's opinion)
Randomized
Randomization description
Simple randomization with table of random numbers available at ''www.randomization.com'' website will be used. Numbers will be placed in sealed envelopes and each envelope is assigned to one participant placing them in one of the two groups
Blinding (investigator's opinion)
Single blinded
Blinding description
Patients will be unaware of which intervention and control groups they belong to
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Mashhad University of Medical Science
Street address
Central Building of Mashhad University of Medical Sciences (Ghorshi), Daneshgah 16, Daneshgah Street
City
Mashhad
Province
Razavi Khorasan
Postal code
9117699199
Approval date
2021-08-28, 1400/06/06
Ethics committee reference number
IR.MUMS.REC.1400.157

Health conditions studied

1

Description of health condition studied
Coronavirus pneumonia
ICD-10 code
U07.1
ICD-10 code description
This code assigned to a disease diagnosis of COVID-19 confirmed by laboratory testing

Primary outcomes

1

Description
Percentage of oxygen secretion
Timepoint
At the beginning of the study (before the intervention) and 14 days after the start of taking captopril
Method of measurement
Using a pulse oximeter

2

Description
Mortality rate
Timepoint
At the end of hospitalization of patients
Method of measurement
According to the physician report

3

Description
Duration of hospitalization
Timepoint
At the end of hospitalization of patients
Method of measurement
According to the physician report

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: In addition to the usual treatment regimen, patients receive captopril at a dose of one 25 mg tablet every 8 hours for 2 weeks from the start of treatment (Without knowing that this drug has entered their treatment regimen)
Category
Treatment - Drugs

2

Description
Control group: Patients in this group receive only routine treatment
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Corona ward in Imam Reza Hospital of Mashhad
Full name of responsible person
Mousalreza Hoseini
Street address
Imam Reza (AS) Hospital, Imam Reza (AS) Square,Ibn Sina St.
City
Mashhad
Province
Razavi Khorasan
Postal code
91379 13316
Phone
+98 51 3854 3031
Email
hoseinimr@mums.ac.ir

2

Recruitment center
Name of recruitment center
Ghaem Hospital
Full name of responsible person
Zahra Meshkat
Street address
Ghaem Hospital, Ahmad Abad AVE
City
Mashhad
Province
Razavi Khorasan
Postal code
99199-91766
Phone
+98 51 3841 3492
Email
meshkatz@mums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Dr Mohsen Tafaghodi
Street address
Central Building of Mashhad University of Medical Sciences (Ghorshi), Daneshgah 16, Daneshgah street
City
Mashhad
Province
Razavi Khorasan
Postal code
345 - 91357
Phone
+98 51 3841 2081
Email
ramresearch@mums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Mashhad 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
Mashhad University of Medical Sciences
Full name of responsible person
Mousalreza Hoseini
Position
Assistant professor
Latest degree
Specialist
Other areas of specialty/work
Internal Medicine
Street address
Ahmad Abad Ave, Ghaem hospital
City
Mashhad
Province
Razavi Khorasan

Postal code
9176699199
Phone
+98 51 3801 2742
Email
hoseinimr@mums.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Mousalreza Hoseini
Position
Assistant professor
Latest degree
Specialist
Other areas of specialty/work
Internal Medicine
Street address
Ahmad Abad Ave, Ghaem hospital
City
Mashhad
Province
Razavi Khorasan
Postal code
9176699199
Phone
+98 51 3801 2742
Email
hoseinimr@mums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Mousalreza Hoseini
Position
Assistant professor
Latest degree
Specialist
Other areas of specialty/work
Internal Medicine
Street address
Ahmad Abad Ave, Ghaem hospital
City
Mashhad
Province
Razavi Khorasan
Postal code
9176699199
Phone
+98 51 3801 2742
Email
hoseinimr@mums.ac.ir

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
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