

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jun 2026

Evaluation the effect of captopril in the treatment of definitive patients with COVID-19

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 (nurses registering patients' status) in the corona ward of Imam Reza 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: **IRCT20140824018915N9**

Registration date: **2021-06-04, 1400/03/14**

Registration timing: **prospective**

Last update: **2021-06-04, 1400/03/14**

Update count: **0**

Registration date

2021-06-04, 1400/03/14

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

hoseinmr@mums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-06-05, 1400/03/15

Expected recruitment end date

2021-07-06, 1400/04/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation the effect of captopril in the treatment of definitive patients with COVID-19

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

Age

No age limit

Gender

Both

Phase

3

Groups that have been masked

- Care provider

Sample size

Target sample size: 40

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

Nurses recording the status of patients will be unaware of the intervention and control groups

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

2020-10-24, 1399/08/03

Ethics committee reference number

IR.MUMS.REC.1399.508

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

Calculated by the physician

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.

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

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Imam Reza (AS) Hospital, Imam Reza (AS) Square, Ibn Sina St.

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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Full name of responsible person

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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

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

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Person responsible for updating data

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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