

Clinical Trial Protocol

Iranian Registry of Clinical Trials

24 Jul 2026

Effect of Intravenous immunoglobulin (IVIG) versus Kaletra (lopinavir and ritonavir) tablets in patients with acute respiratory infection (COVID-19): A clinical trial studies

Protocol summary

Study aim

Investigation of the effect of Intravenous immunoglobulin (IVIG) in comparison with Kaletra (lopinavir and ritonavir) tablets in patients with acute respiratory COVID-19 infection

Design

This study is a non-randomized, not blinded clinical trial with control group in phase 2 and sample size of 20.

Settings and conduct

This interventional study will be conducted as a prospective, Single-center trial. 20 patients with COVID-19 infection admitted to Bohlool hospital and have not responded to routine treatment, will be selected. All patients who meet the eligibility criteria with informed consent will receive IVIG or Kaletra. Patient's symptoms and their severity, clinical examinations and findings of chest CT scan will be evaluated before and after treatment.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Subjects (men or women) at least 18 years with definitive diagnosis with COVID-1; Having one of the factors of decrease in consciousness level; hypoxemia; hypercapnia; Increased lung involvement despite treatment; Informed consent. Exclusion criteria: Sensitivity to IVIG; Pregnancy; Breastfeeding; IgA deficiency.

Intervention groups

Intervention group will receive a standard regimen for COVID-19 plus intravenous immunoglobulin (IVIG). They will receive 400 mg/kg/day of IVIg in 3 doses (max=25 g). Control group will receive Kaletra (200/50) two tablet every 12 hr for 7-14 days.

Main outcome variables

Improvement the radiologic and laboratory parameters; necessity to ICU admission; duration of ventilation; duration the hospitalization; the mortality rate; SpO2.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200418047116N1**

Registration date: **2020-05-04, 1399/02/15**

Registration timing: **registered_while_recruiting**

Last update: **2020-05-04, 1399/02/15**

Update count: **0**

Registration date

2020-05-04, 1399/02/15

Registrant information

Name

Negar Shafaei bajestani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 51 5723 6833

Email address

shafaei.n@gmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-03-10, 1398/12/20

Expected recruitment end date

2020-05-21, 1399/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Intravenous immunoglobulin (IVIG) versus Kaletra (lopinavir and ritonavir) tablets in patients with acute respiratory infection (COVID-19): A clinical trial studies

Public title

The effect of Intravenous immunoglobulin on COVID-19 infection

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Positive PCR for COVID -19
Informed consent for inclusion
Hypoxemia not responsive to oxygen therapy
Loss of consciousness (GCS≤14)
Hemodynamic instability
Hypercapnia
Extent of pulmonary involvement
Non-use estrogen-containing compounds
Non-be pregnant or breastfeeding

Exclusion criteria:

Sensitivity to IVIG
IgA deficiency history
Allergic reaction during IVIG injection

Age

From **18 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

Not randomized

Randomization description**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**

Ethics committee of Gonabad University of Medical Sciences

Street address

Dr.Mehdizade Blvd.

City

Gonabad

Province

Razavi Khorasan

Postal code

9691793718

Approval date

2020-04-06, 1399/01/18

Ethics committee reference number

IR.GMU.REC.1399.009

Health conditions studied**1****Description of health condition studied**

COVID-19 disease

ICD-10 code

U07.1

ICD-10 code description

COVID-19

Primary outcomes**1****Description**

Pulmonary manifestations

Timepoint

before and after treatment

Method of measurement

Computed Tomography scan

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: intravenous immunoglobulin (IVIG), brand name Intratect ®, 400 mg/kg/day in 3 doses will be administered by slow intravenous infusion.

Category

Treatment - Drugs

2**Description**

Control group: Lopinavir/ritonavir, brand name Kaletra®, two tablet of 200/50 mg dose every 12 hours will be administered orally.

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Bohlol Hospital

Full name of responsible person

Najme Davoodian

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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

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
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Position
Assistant Professor

Latest degree
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is 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

Yes - There is a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

All data can be shared after patients are made unidentifiable.

When the data will become available and for how long

Data can be accessible 6 months after results are published.

To whom data/document is available

The researchers in university and other scientific institutes.

Under which criteria data/document could be used

Help in managing of patients.

From where data/document is obtainable

Data can be accessible through sending an email to the corresponding author.

What processes are involved for a request to access data/document

After sending a request email to the corresponding author, data will be sent in 1 month.

Comments