Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Administration of Zinc-Chelating Agents (intravenuosly CaNa2EDTA) in COVID-19 Patients: A pilot study

Protocol summary

Study aim

Evaluation of blood cells, blood pressure, blood oxygen, albumin, total protein,ALT, AST, ALP, LDH, LDL,HDL, Cholesterol, Triglyceride, CRP, Pro-Calcitonin, IL-6, Pro-BNP, D-dimer, in patients receiving EDTA and control group

Design

In this study, 100 people who are divided into two groups of control and treatment will enter the study. And are categorized completely randomly.

Settings and conduct

The prescribing strategy is based on the minimum effective dose for each patient in Ghaem Asadabad Hospital. In order to tailoring of medical treatment to the individual characteristics of each patient (precision medicine) and to avoid adverse effects, an administration strategy based on the minimal effective dose (which can be different depending on the patient and disease condition) for each patient will be pursued. To this aim, it is proposed to start with 100 mg/m2 every 8 hours (3 times a day).

Participants/Inclusion and exclusion criteria

The study population is the total number of patients admitted to the Intensive Care Unit (ICU) of Ghaem Hospital, Asadabad, who was admitted to that ward due to respiratory distress caused by Covid-19 disease. After the researchers explain the goals of the project, the patients who sign the consent will enter the research. Exclusion criteria included diabetic patients taking insulin, patients with urinary tract problems, patients with cardiovascular problems, and people who did not sign the consent form.

Intervention groups

Control group: Receiving common medications for Covid-19 in the ICU Treatment group: Receiving common drugs for for Covid-19 in the ICU + a dose of 50 to 100 mg of calcium EDTA three times a day intramuscularly or intravenously for 2-3 days and 5 days if needed

Main outcome variables

Improve oxygen supply

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210913052453N1**
Registration date: **2021-11-08, 1400/08/17**
Registration timing: **retrospective**

Last update: **2021-11-08, 1400/08/17**
Update count: **0**

Registration date

2021-11-08, 1400/08/17

Registrant information

Name

hemen moradi-sardareh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 81 3313 2015

Email address

hemen.moradi@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-09-23, 1400/07/01

Expected recruitment end date

2021-10-23, 1400/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Administration of Zinc-Chelating Agents (intravenuosly CaNa2EDTA) in COVID-19 Patients: A pilot study

Public title
"The chelating effect of zinc in patients with Covid 19"
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients with Covid-19 admitted to the Intensive Care Unit (ICU) Patients with Covid-19 with respiratory distress
Exclusion criteria:
insulin-dependent diabetic patients Patients with urinary tract disorders Patients with cardiovascular system disorders
Age
No age limit
Gender
Both

Phase
2-3
Groups that have been masked
No information
Sample size
Target sample size: **50**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomization method: Simple randomization Randomization tool: Random number table Random number table is a set of numbers that are produced without a specific pattern or order and in a completely random form and has become a table. In order to use the table of random numbers, we first predetermined the table to read the numbers (for example, up, down, left or right), then we assumed that the numbers should be used for different study groups.
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 asadabad school of Medical Sciences
Street address
22 bahman Blvd, asadabad city
City
Asadabad
Province
Hamadan
Postal code
6541743896
Approval date
2021-08-24, 1400/06/02
Ethics committee reference number
IR.ASAUMS.REC.1400.010

Health conditions studied

1

Description of health condition studied
covid-19
ICD-10 code
B34.2
ICD-10 code description
Coronavirus infection, unspecified

2

Description of health condition studied
covid-19
ICD-10 code
R06.0
ICD-10 code description
Dyspnea

3

Description of health condition studied
covid-19
ICD-10 code
R05
ICD-10 code description
Cough

4

Description of health condition studied
covid-19
ICD-10 code
J12.81
ICD-10 code description
Pneumonia due to SARS-associated coronavirus

Primary outcomes

1

Description
blood oxygenation
Timepoint
At the beginning of the study, and 3 days after the study
Method of measurement
Evaluation of blood factors and clinical condition of the patient

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Receiving common drugs for the treatment of Covid-19 in the ICU along with receiving a dose of 50 to 100 mg of calcium EDTA three times a day intramuscularly or intravenously for 2-3 days and if necessary 5 days.
Category
Treatment - Drugs

2

Description
Control group: Receiving common medications for the treatment of Covid-19 in the ICU
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Ghaem hospital
Full name of responsible person
hemen moradi-sardareh
Street address
University Boulevard has not reached the town of Seyed Ahmad Khomeini
City
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6541743896
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Email
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Web page address
http://asaums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Asadabad University of Medical Sciences
Full name of responsible person
Dr.Hosein effatpanah
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22 bahman Blvd
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Email
amoozesh@asaums.ac.ir
Grant name
Research budget of Asadabad School of Medical Sciences
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Asadabad 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
Asadabad University of Medical Sciences
Full name of responsible person
hemen moradi-sardareh
Position
Assistant Professor
Latest degree
Ph.D.
Other areas of specialty/work
Biochemistry
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Asadabad, Ghaem Hospital Street, in front of Payame Noor University
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Person responsible for scientific inquiries

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Position
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Person responsible for updating data

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Other areas of specialty/work
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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
Yes - There is 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
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
No - There is not a plan to make this available
Title and more details about the data/document
If the results of the study are positive for the treatment of patients, the protocol will be reported.
When the data will become available and for how long
Access period starts 3 months after the results are published
To whom data/document is available
All people working in health care centers, and academic and scientific institutions
Under which criteria data/document could be used
There will be no restrictions on the use of data
From where data/document is obtainable
Correspondence with e-mail address
What processes are involved for a request to access data/document
Send an email to the investigator to receive the data clearly stating the reason for receiving the data
Comments