

Synopsis on Novel Coronavirus (COVID-19) Disease

Jamatsing D.Rajput*

Department of Chemistry, BP Arts, SMA Science and KKC Commerce College, Chalisgaon, Maharashtra, 424101, India

Abstract

Coronavirus (COVID-19) disease is an infectious disease caused by a new virus. Symptoms such as cough, fever, and more severe cases include respiratory illness (flu-like). The World Health Organization (WHO) has announced a global pandemic about the new coronavirus, which has spread to at least 217 countries and territories known as COVID-19. Of those, more than 18892 died and 422614 infected. This article contains a short overview of the coronavirus and its affected countries. There is also a short analysis of the Coronavirus. Finally, Corona has tried to figure out how to prevent the virus.

Keywords: Pandemic; COVID-19; Corona; Disease

Received with Revision May 15, 2020, **Accepted:** May 29, 2020, **Published:** June 04, 2020

Introduction

The fourth pandemic coronavirus (COVID-19), declared by the World Health Organization (WHO), is an infectious disease caused by the newly discovered coronavirus [1]. A coronavirus is a group of viruses. The virus causes various diseases to mammals and birds [2,3]. These include diarrhea caused by cows and pigs and respiratory diseases caused by hens. The virus is transmitted to humans by respiratory infections [4]. These infections are often mild, but potentially fatal. Antiviral drugs that prevent coronavirus vaccines or diseases are not yet available [5]. The virus first appeared in people belonging to the seafood wholesale market in Wuhan in Hubei province, China. On November 2019, Chinese health officials confirmed that the symptoms were related to the coronavirus. The 55-year-old man first reported a coronary virus infection, according to the Chinese Ministry of Health [6].

The disease then plagued China throughout Wuhan. From January to February, the total infected statistics reached 60342. A total of 2008 people died. By the time the world understands Corona's transition to China, 13,137 people have been infected worldwide [7]. It consisted mainly of tourists from Europe [8]. Most of the tourists were from Italy. Therefore, the impact of the disease is seen in Italy after China. After 20th February, the Government of Italy showed readiness to begin the work-related measures, but by then the statistics for infectiousness had reached 33200 [9]. In Italy, on Monday, the coronavirus reported 2202 new deaths, bringing the total number of cases to 60122 [10]. At the same time, the spread of the disease is seen in the United States, Spain, Germany, Iran, France, Switzerland, South Korea, England, the Netherlands, Austria, Belgium, Norway, Canada, Portugal, Australia, Sweden, Brazil. In other countries, the tide

is mild but rapidly increasing [11,13] one sentence repeated. So far, coronavirus infection has been reported in 207 countries worldwide and it is increasing day by day [13]. So far 422614 people have been infected with Corona in the world, out of which 18892 have died. With that, 108879 have been cured [14].

There are no specific vaccines or treatments for COVID-19. Therefore, many clinical trials studying potential treatments are underway. The World Health Organization will continue to provide up-to-date information as soon as clinical research is available [15].

Symptoms of corona infection

Most people infected with the COVID-19 virus will suffer from mild to moderate respiratory infection and can be cured without special treatment [16]. Older people and basic medical problems such as cardiovascular disease, diabetes, respiratory disease and cancer are more likely to have serious illnesses. The most common symptoms of corona are fever, fatigue, and dry cough. Some patients may have pain, nasal congestion, runny nose, sore throat or diarrhea [17]. These symptoms are usually mild and start slowly. Some people get infected but have no symptoms and don't feel well. Most people (about 5%) recover from this illness without special treatment. 1 out of every 3 people with coronas get seriously ill and have difficulty breathing [18]. Your immunity system responds to the infection with fever, and usually depression. Common Signs and symptoms within 2 to 14 days are:

- Fever

*Corresponding author:

Jamatsing Darbarsing Rajput

✉ jamatsingh50@gmail.com

Tel: +919673232264

Department of Chemistry, BP Arts, SMA Science and KKC Commerce College, Chalisgaon, Maharashtra, 424101, India.

Citation: Rajput JD (2020) Synopsis on Novel Coronavirus Disease (COVID-19). Health Sci J. Sp. Iss 1: 010.

- Cough
- Shortness of breath or difficulty breathing
- Tiredness
- Aches
- Runny nose
- Sore throat

About coronavirus (COVID-19)

The corona virus is a non-living DNA protein, belong to the subfamily Orthocoronavirinae, in the family Coronaviridae, order Nidovirales closed viruses with a positive-sense single-stranded RNA genome and a nucleocapsid of helical symmetry [19]. The genome size of coronaviruses ranges from approximately 27 to 34 KBS, the largest among known RNA viruses[20].The name coronavirus is derived from the Latin corona, meaning "crown" or "halo", which refers to the distinctive appearance (**Figure 1**) reminiscent of a crown or a solar corona around the virions (virus particles) when viewed under two-dimensional transmission electron microscopy, due to the surface being covered in club-shaped protein spikes [21,22].

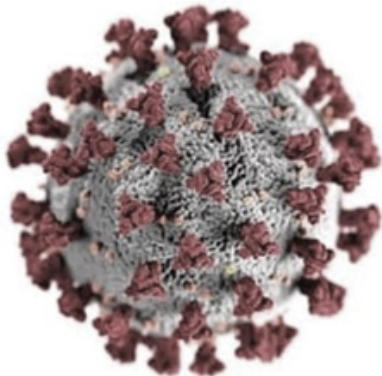


Figure 1 Structural Morphology of coronaviruses.

How to care for corona virus (COVID-19)

- Wash hands with water and soap for 2 seconds. If you use an alcoholic hand wash, 5 seconds is enough. If your hand is unclean or damaged by soil, use soap and water only.
- Keep a napkin on the nose and mouth when coughing or sneezing. If there is no handkerchief, use tissue paper. Otherwise you can cough under the corner of your hand. When using tissue paper, immediately throw it into the trash.
- The coronavirus can spread to the surface of people through spit. Unknowingly, your hand can apply to that surface. So do not touch the mouth, nose, face or eyes.
- Keep at least three feet away from the person talking to the person in front.
- If you want to fight against the coronavirus, it is important that you have good immunity. It has high levels of Vitamin C.

Quarantine

In order to stop the spread of the virus, the movement of infected countries was banned in March month[23]. Flights, trains, public buses, metro systems and long-distance trains were suspended indefinitely. Large-scale aggregation and group tourism have also been suspended. As of total of 34 countries in the world, have also been placed under similar quarantines

Home quarantine

A contact is defined as a healthy person that has been in such association with an infected person or a contaminated environment as to have exposed and is therefore at a higher risk of developing the disease[24].

Stay in a well-ventilated single-room preferably with an attached/ separate toilet. If another family member needs to stay in the same room, it's advisable to maintain a distance of at least 1 meter between the two.

Needs to stay away from elderly people, pregnant women, childrens and persons with co-morbidities within the household.

Restrict his/her movement within the house.

Under no circumstances attend any social/religious gathering e.g. wedding, condolences, etc.

Instructions for home quarantined person

The home quarantine period is for 14 days from contact with a confirmed case or earlier if a suspect case turns out negative on laboratory testing [24].

Wash hand as often thoroughly with soap and water or with alcohol-based hand sanitizer

Avoid sharing household items e.g. dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with other people at home.

Wear a surgical mask all the time. The mask should be changed every 6-8 hours and disposed of. Disposable masks are never to be reused.

Masks used by patients close contacts during home care should be disinfected using sodium hypochlorite and then disposed of either by burning or deep burial.

The used masks should be considered as potentially infected.

If symptoms appear, he/she should immediately inform the nearest health center.

Environmental cleanliness

Clean and disinfect frequently touched surfaces in the quarantined person's room (e.g. bed frames, tables etc.) daily with 1% Sodium Hypochlorite Solution [24].

Clean and disinfect toilet surfaces daily with regular household bleach solution/phenolic disinfectants

Clean the clothes and other linen used by the person separately using common household detergent and dry.

Concerns around the world are growing as Corona's spread is

increasing day by day. Corona is now spread to 207 countries and has suffered thousands. The death toll is also increasing worldwide. Against this backdrop, many governments have decided to take measures on the battlefield [25]. So, the collapse of the stock market has also hit the financial sector [26-28]. Many countries around the world are working tirelessly to produce vaccines on Corona. No drugs have been produced on it yet. Currently, doses of various antipyretic and antiviral drugs based hybrid combinations are being used worldwide [26]. Potential vaccines and certain drug treatments are underway The World Health Organization is cooperating internationally with clinical trials to develop vaccines and drugs to prevent the virus [27]. Infecting countries in the world will be the test to ensure that

these viruses do not become infected or become infected after the coronary disease is infected. The world has no magic wand to overcome these viruses [28]. At the end, when the whole war against Corona was in place, the citizens of every country should follow the rules laid down by the government there, only then the world would win and Corona would lose.

Acknowledgement

Author thanks to World Health Organization (WHO), Ministry of Human Resource Development (MHRD) India and Maharashtra Government for the primary literature and true figures related to corona infection virus.

References

- 1 The World Health Organization (2020) Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.
- 2 Fehr AR, Perlman S (2015) Coronaviruses: an overview of their replication and pathogenesis. *Coronaviruses* 1282: 1-23.
- 3 Cavanagh D (2005) Coronaviruses in poultry and other birds. *Avian Pathol* 34: 439-448.
- 4 National Foundation for Infectious Diseases (2020) Novel Coronavirus (COVID-19).
- 5 Li G, De Clercq E (2020) Therapeutic options for the 2019 novel coronavirus (2019-nCoV).
- 6 The World Economic Time (2020) 1st known case of coronavirus traced back to November in China.
- 7 Emerging Infectious Disease (2020) Estimating Risk for Death from 2019 Novel Coronavirus Disease, China. January–February 2020.
- 8 The New York Times (2020) Italy, Pandemic's New Epicenter, Has Lessons for the World.
- 9 BBC News (2020) Coronavirus: Italy says 1,000 have died but lockdown can work.
- 10 BBC News (2020) Coronavirus: Italy reports biggest daily jump in death toll.
- 11 Khan N, Fahad S, Faisal S, Naushad M (2020) Quarantine Role in the Control of Corona Virus in the World and Its Impact on the World Economy. *SSRN Electronic Journal*.
- 12 Jones XRC (2020) Covid-19: An Exposition, with a Focus on Social Isolation in the Elderly (UK).
- 13 The World Health Organization (2020) The fourth pandemic corona (COVID-19) case-I.
- 14 The World Health Organization (2020) The fourth pandemic corona (COVID-19) case-II.
- 15 The World Health Organization (2020) COVID-19 virus can be transmitted in areas with hot and humid climates.
- 16 Xu XW, Wu XX, Jiang XG, Xu KJ, Ying LJ, et al. (2020) Clinical findings in a group of patients infected with the 2019 novel coronavirus (SARS-Cov-2) outside of Wuhan, China: retrospective case series. *BMJ* 368: m606.
- 17 Healthline (2020) Not Sure You Have COVID-19? Here Are the Symptoms for Coronavirus, Flu, and Allergies.
- 18 Healthline (2020) How the Novel Coronavirus Spreads in Public Places and How to Protect Yourself.
- 19 Zhou P, Yang XL, Wang XG, Hu B, Zhang L, et al. (2020) A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature* 579: 270-273
- 20 Morini S, Calzolari M, Rossini G, Pascarelli N, Porcellini A, et al. (2020) Detection of Specific Antibodies against Toscana Virus among Blood Donors in Northeastern Italy and Correlation with Sand Fly Abundance in 2014. *Microorganisms* 8: 145.
- 21 Gravinatti ML, Barbosa CM, Soares RM, Gregori (2020) Synanthropic rodents as virus reservoirs and transmitters. *Revista da Sociedade Brasileira de Medicina Tropical* 53.
- 22 World Health Organization (2020) Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts. Interim guidance.
- 23 Johns Hopkins Medicine (2020) Coronavirus, Social Distancing and Self-Quarantine.
- 24 Government of India (2020) Ministry of Health & Family Welfare Directorate General of Health Services (EMR Division) Guidelines for home quarantine Corona awareness circular by (2020) MHRD ministry Indian Government.
- 25 The Irish Time (2020) Coronavirus Pandemic.
- 26 Clinical Trial arena (2020) Coronavirus treatment: Vaccines/drugs in the pipeline for COVID-19.
- 27 World Health Organization (2020) WHO Director-General's opening remarks at the media briefing on COVID-19 - 27 March 2020.
- 28 Wang C, Horby PW, Hayden FG, Gao GF (2020) A novel coronavirus outbreak of global health concern. *The Lancet* 395: 470-473.