

# COVID-19: A LESSON FOR THE WORLD

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## ABSTRACT

Covid-19 has emerged as a global health threat due to its accelerated geographic spread over the last two years. This article reviews the current state of knowledge concerning the origin, transmission, diagnosis and management of covid-19. It has emerged from China and the virus is believed to have been acquired from zoonotic source and spreads through direct and contact transmission. The symptomatic phase manifests with fever, cough and myalgia to severe respiratory failure. The diagnosis is confirmed using reverse transcriptase PCR. Management of covid-19 is mainly by supportive therapy along with mechanical ventilation in severe cases. Preventive strategies form the major role in reducing the public spread of virus along with successful disease isolation and community containment. At present second wave corona virus drastically spreading in India. Although India has been taking effective corona containment measures the disease is not yet under the control.

## NEED OF THE STUDY

Corona virus is one of a group of viruses that can cause disease in both animals and humans. The WHO named it COVID-19 as the virus is caused by the novel corona virus. There have been millions of cases of COVID-19 and lakhs of deaths across the world and WHO has declared it a pandemic. The pandemic has destructed all sectors on the globe. In view of the comprehensive destruction caused by COVID-19 the paper attempts to create awareness among the people about the disease and also depict the origin, causes for spreading the disease, adverse effects and a few advantages. The paper also covers the causes for the spread of corona virus second wave and also proposed a few suggestions to contain the corona virus second wave in India.

## HYPOTHESIS

1. To trace out the origin and spread of COVID-19
2. To understand the features of COVID-19
3. To analyze the preventive measures to avoid the COVID-19 .
4. To evaluate the losses and few advantages of COVID-19 .

## INTRODUCTION

COVID-19 pandemic is tragically affecting people's health, lives and the means of livelihood. It is also affecting the economy and environment across the globe. First wave corona virus almost decreased at the end of 2020 but the second wave started in the beginning of 2021. Now India has been experiencing severe second wave corona virus infections and it had reached first place in this regard.

As a specific family of viruses, COVID-19 virus first originated in Wuhan city, China, was declared a pandemic on March 11, 2020 by World Health Organization(WHO). According to WHO it is caused by the newly discovered corona virus, most people got infected and experience mild to moderate respiratory illness and recover without requiring special treatment.

## THE SPREAD OF COVID-19

The COVID-19 spreads mainly when an infected person is in close contact with another person. Small droplets and aerosols containing the virus can spread from an infected person's nose and mouth as they breath, cough, sneeze, sing or speak. Other people are infected if the virus gets into their mouth, nose or eyes. The virus may also spread via contaminated surfaces, although this is not thought to be the main route of transmission. The exact route of transmission is rarely proven conclude but infection mainly happens when people are near each other for long enough, people who are infected can transmit the virus to another person up to two days before they themselves

show symptoms, as can people who do not experience symptoms.<sup>1</sup> People remain infectious for up to ten days after the on set of symptoms in moderate cases and up to 20 days in severe cases.<sup>2</sup>

## COMMON SYMPTOMS OF COVID-19

The following symptoms were exposed when the COVID-19 attacked.

1.Fever 2.Breathlessness 3. Cough 4.Sore Throat 5. Headache 6. Muscle Pain 7.Chills 8. Loss of taste and Smell. 9. Nausea, Vomiting or both 10. Diarrhea. These symptoms occur in between 2 to 14 days after expose to the virus.

COVID-19 is more dangerous than other viruses. It can cause symptoms that become severe, leading to death in some cases. The outbreak of COVID-19 has been sudden. This makes it difficult to estimate how often the disease becomes severe or the exact rate of mortality. One report suggests that out of 1099 people with confirmed cases in China, around 16% become severe. Another report estimates that about 3.6% of the confirmed cases in China led to death.<sup>3</sup> These figures are likely to change as the situation evolves. However, they suggest that COVID-19 is more deadly than influenza. For example, seasonal Influenza typically leads to death in less than 0.1% of cases.

## RISK FACTORS

Some factors can affect the risk of coming into contact with the corona virus, while other factors can affect the risk of developing severe illness. The risk of coming into contact with the corona virus depends on how far it has spread in a person's local area. The risk is higher for anyone in close contact with people who have COVID-19, such as healthcare workers. Virus can also spread more in certain areas, such as highly populated cities.

Old people are most at risk of severe illness, as are people with the following chronic health conditions.

- Serious heart conditions, such as heart failure, coronary artery diseases or cardiomyopathis
- Kidney disease
- Chronic obstructive pulmonary disease(COPD)
- Obesity, which occurs in people with a body mass index(BMI) of 30 or higher
- Sickle cell disease
- Weakened immune system from a solid organ transplant
- Type 2 diabetes.<sup>4</sup>

As the virus progresses, severe complications can arise. COVID-19 can affect a wide range of body system and lead to multiple organ failure.

## PREVENTIVE MEASURES

The following measures are to take to avoid risk and infection of COVID-19. They are:

- Vaccination is the immediate and the best prevention of corona virus. At present various types of vaccines are available across the world. Some of the important vaccines are listed out hereunder.

- 1.AstraZeneca – Oxford
2. Sputnik-V – Russia
3. Covishield – India
4. Covaxin – India
5. Pfizer- BioNtech – Germany
6. Johnson & Johnson – USA
7. Moderna – USA
8. Coronavac - China

The above said vaccines are approved by WHO and the process of vaccination is speedily going on across the world. India is the largest producer as well as the exporter of the covid-19 vaccine in the world.<sup>5</sup>

- Another best way to prevent the virus from spreading is by avoiding closeness of mass. Especially to curb the meetings, assemblies etc.

- Washing the hands frequently is another preventive method. The Center for Disease Control and Prevention(CDCP) recommend washing the hands with the soap and water for at least 20 seconds per time. This is particularly important after being in public places.
- When soaps not available, use a hand sanitizer with at least 60% alcohol. Avoid touching the face before washing the hands.
- Governments, public bodies and other organizations are also taking measures to prevent the spread of covid-19.
- People with Covid-19 should stay at home and avoid contact with other people to prevent the illness spreading. Keep surrounding surfaces as clean as possible and avoid sharing household items.
- Always cover the mouth and nose when coughing and sneezing. Face masks are generally necessary for people who have the illness. Anyone who has regular contact with people with Covid-19 should also wear a face mask.

## **PROS & CONS OF COVID-19**

### **ADVERSE EFFECTS**

COVID-19 pandemic is tragically affecting the world in all aspect. The following adverses occurred due to COVID-19 pandemic were:

1. COVID-19 created holocaust across the world. Lakhs of lives were lost in many countries due to COVID-19. Major victim countries were the USA, Italy, Brazil, India, France, Germany etc.
2. Due to lockdown world economy was severely damaged. GDP of the all countries had touched minus growth rate.
3. International aviation has been completely stopped and cutoff from direct links among the countries.
4. World tourism had badly hit by COVID-19. In this sector millions of employments lost and some of the countries' income were also plummeted the lowest levels ever.
5. International trade and commerce affected and many countries suffered with the scarcity of goods and services.
6. Due to lockdown the industries which are running in the private sector have shot down because of poor marketing position. To overcome this crisis many countries such as the USA, Japan, India etc. announced stimulus packages to the private sector.
7. Due to lockdown during the COVID-19 the inter-state transportation is completely banned in India. With this the migrated labors faced lot of problems to get back their destinations. Some of the labors died due to lack of food and other basic amenities during their journey backwards to their native places on foot. Both the centre and the state governments failed to provide facilities to help them.
8. The education sector also adversely affected due to covid-19. Due to lockdown both the domestic and international educational institutions have been closed down for some months and academic year was disturbed. Indian students who are studying abroad faced many difficulties to return to their motherland.
9. Due to COVID-19, the lives of street vendors in India got totally disturbed. They lost their income during the lockdown. Governments' assistance is not sufficient enough to acquire their minimum requirements.
10. During lockdown period the per capita consumption of electricity of each family gradually increased and the low income families were unable to bear the electricity bill.

### **THE POSITIVE SIDE OF COVID-19**

The pandemic has taught some invaluable lessons to the humanity. They are:

1. COVID-19 taught a lesson about the importance of health and sanitation. People who belong to all ages sensitized to take precautionary measures about the protection of their hygiene. People have started to give a top priority to keep their surroundings clean and neat.
2. Due to lockdown all kinds of pollutions decreased at lowest levels. Especially in India rivers like the Ganges and the Yamuna touched the lowest pollute levels.

3. In India petroleum products consumption decreased during the lockdown period. The result is the price of crude oil fall down and India saved lot of foreign exchange.
4. During the covid-19 parents lived with their children together as long as lockdown continued. This might be increased affection and happiness between parents and children.

### SECOND WAVE OF COVID-19 IN INDIA

The second wave of Covid-19 in India has drastic effects on the country and has overwhelmed the health sector. The situation is getting worse as the Covid-19 infection is going undetected in the RT-PCR test. Higher the number of susceptible people, faster would be the spread, if there are no interventions to reduce contact among them.

According to the John Hopkins Medicine, human behavior is the major factor for the second wave of corona-19 pandemic. People are not maintaining social distance, non wearing mask, absence of sanitization, crowded markets and election rallies are the chief responsible factors for the faster spread of corona second wave in India.<sup>6</sup> The average positive cases recorded more than 3 lakhs per day since last week of April, 2021. This is a panic situation.

The second wave of Covid-19 has pushed India's healthcare system to the brink of collapse, with hospitals at full capacity and an acute shortage of oxygen aggravating an already desperate situation. The second wave of Covid-19 has divested big cities like Delhi, Mumbai, Lucknow and Pune. Maharashtra is the most affected state followed by Utter Pradesh, Delhi, Kerala and Karnataka.

### Causes for the Rising of Covid-19 Cases in the Second Wave in India

Five causes responsible for raising the corona cases in the second wave in India were:

- **Protocol Fatigue:** Due to strict lockdown that was imposed last year covid-19 slow down. When the cases started declining people gatherings began becoming large particularly January 2021 onwards. Rules were relaxed and penalties were not enforced. In metro trains people could travelling without wearing mask. This pattern was seen across the country allowing the novel corona virus to create a second and possibly stronger wave.
- **Mixed Signal from Government:** Protocol Fatigue appears to have affected the government machinery as well. Though Prime Minister Narendra Modi in his speeches emphasized keeping the vigil against the covid-19 pandemic, the states, even his party (BJP) leaders and workers did not care to follow the protocol in organizing rallies for elections in Bihar last year and assembly polls in Assam, W.Bengal, Kerala, Tamil Nadu and Puducherry. The queues outside polling booths and gatherings at the election rallies of all the parties defied covid-19 protocol. It weakened the vigil against the pandemic.
- **Urban Mobility:** In India recorded covid-19 cases are still mostly concentrated around cities, especially the bigger cities such as Mumbai, Pune, Nagpur, Bangaluru and Delhi. These cities have greater mobility giving more opportunities for the virus to spread from one person to another when the guard is lowered.
- **Mutations:** Besides the human factors, the evolution of corona virus is among the major reasons for the second wave. Scientists have detected numerous mutations in the SARS-COV-2, the corona virus that causes covid-19. Some of these mutations have produced what they call is "Variants Of Concern"(VOCs). India has reported such VOCs from several states including the worst impacted ones by the second wave of covid-19 pandemic.
- **Increased Testing:** Increasing testing is another reason why India is detecting more cases in the second wave of the covid-19 pandemic. The Sero-surveys have shown that India had greater covid-19 exposure than revealed through confirmed cases of corona virus infection on the basis of laboratory tests. By the time the second wave hit India, the availability of covid-19 testing had improved tremendously compares to the first wave situation.

## SOLUTIONS TO CONTROL THE COVID-19

- Acceleration of vaccination is the suitable solution to contain the corona virus. It is clearly evident that after taking the two doses of vaccine the immunity power gradually increased among the people who were vaccinated. As a result covid-19 cases decreased. In the USA vaccine detected the covid-19 deaths. So India is also should focus on speed up the vaccination process.
- Strict rules should be implemented regarding wearing the mask by everyone to fully covered both mouth and nose.
- To impose the social distancing intended to slowdown the spread of corona disease. Methods include quarantines, travel restrictions, closing of educational institutions, work places, stadiums, theatres, shopping malls, and public transportation etc should be implemented by the government.
- Self-isolation at home has been recommended for those diagnosed with covid-19 and those who suspect they have been infected. Health agencies have issued detailed instructions for proper self-isolation.
- Through hand hygiene after any cough or sneeze is required. The WHO also recommends that individuals wash hands often with soap and water for at least 20 seconds, especially after going to the toilet or when hands are visibly dirty, before eating and after blowing one's nose. When soap and water are not available, the CDC (USA) recommends using an alcohol-based hand sanitizer with at least 60% alcohol.
- To create awareness among the public about not to touch their eyes, nose and mouth with their fingers.
- The health department should encourage the people to take the spices content food such as ginger, garlic, pepper, turmeric etc which are having medical values and strengthen the immunity power naturally. And also recommend some kinds of fruits such as lemon, orange, pine-apple mango etc., which are able to detect the virus in the human body according Medical research. And
- At present conditions, complete lockdown is not possible due to worse economic conditions prevailed in the country. Already we experienced by it during the first wave covid-19. At that time not only our GDP touched minus stage but also people were faced with lot of troubles. So the union and the state governments should handle the covid-19 problem with delicate and balanced manner.
- India should follow the three-way strategy to face the second wave covid-19.
  1. To protect the economy by imposing partial lockdown for avoiding the mass gathering.
  2. To implement the containment methods regarding covid-19 disease by speedup the vaccination process, wearing masks, sanitization and avoid social distance etc,.
  3. To provide good medical facilities to the corona patients in the hospitals by providing sufficient oxygen, vaccines, nutrition food, ventilation and sanitation facilities etc,. These will definitely increase the recovery rate.

## CONCLUSION

To conclude, Covid-19 has presented itself as a global pandemic in a short time period resulting in rapid curve shift of infected patients, increasing death rates, huge global economic burden and widespread mobilization of medical resources across the globe. Being a novel disease, Covid-19 has presented itself as a mystery infection to the medical field, also requiring tremendous research and insights about the nature of the virus, and posing frequent challenges for a successful vaccination. The approach to this disease

requires active loco-regional to international collaboration with regards to disease containment, preventive strategies and treatment approach.

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