

The Effect of COVID-19 Epidemic Pandemic and Preventive Measures in India: A Review

Chander Prabha, Shweta Agarwal, Anjali Goel



Abstract: Before the COVID-19 coronavirus, there were the deadliest diseases, various epidemics, and pandemics in which millions of human races have been killed untimely. It's a new public health crisis that has been spreading across the world and is threatening. Due to coronavirus, there is a restriction on travel, visa, and large-scale quarantine. An epidemic is a widespread disease in one community at a particular tie whereas a pandemic is spread across continents at the same pace. The rate of infection and death increases is called a pandemic. In 1852 third Cholera in which approximately one million people across the world were killed. From 1889-to 1890 Flu was caused by the influenza virus H3N8 subtype in Russia and spread in North Hemisphere and killing about one million people. From 1910-to 1911 Sixth cholera outbreak in India and disseminated to Eastern Europe, the Middle East, Russia, North Africa and killing about 8 lac people. In 1918 there was Spanish Flu affected over 500 million people and killed nearly the same people affected it. In 1957 Asian flu an avian influenza virus killed about 2 million people. In 1958 there was Hong Kong Flue originated in Asia, the pandemic was virus H3N2 subtype and suspected of an influenza outbreak in 1957, which killed about one million people. The vaccine was introduced. China is the epicenter of the global supply chain of COVID-19 spreading to more than 120 countries around the world in 2019. This virus is spreading faster than its ancestors i.e., SARS-CoV and MERS-CoV but has a lower fatality rate. The paper focuses on the coronavirus spread from its origin and various steps and precautions to be taken to limit the spread of this epidemic. However, the global impact of this COVID is yet uncertain.

Keywords: COVID-19, Epidemic, Global Coronavirus, MERS-CoV, pandemic, SARS-CoV, Wuhan.

I. INTRODUCTION

As it is evident from the past that any epidemic or pandemic may occur in the world generated by a human being in the laboratory the scientists and researchers. The covid-19 has been generated in the Wuhan Virology laboratory of China [1].

It was called the creation of researchers and scientists to become a powerful nation in the world. The coronavirus is generated by man. It is not natural.

Corona Virus not Natural: It was apprised by Nobel Prize Winner Prof. Dr. Tasuku Honzo of Japan Coronavirus before media that Coronavirus is not natural. It has been prepared in the Wuhan biological laboratory of China. Every nation has its temperature. Coronavirus has been spreading in the desert as well as cold countries like Switzerland. He has served in the Wuhan laboratory for four years and as and when he tries to contact his colleagues their phones are closed. He has also stated that if his statement is false, he is ready to surrender his Nobel Prize as the Coronavirus is artificial and China is telling a lie that it is a virus from bats [2].

A. Origin of Covid-19

Chinese virologist named Shi Zhengli is the one who has researched SARS-like coronavirus originating from bats. In 2017 during research at the Wuhan Institute of Virology, Shi Zhengli and Cui Jie identified the SARS coronavirus originated from the bat community of Yunnan (province in Southern China). Shi Zhengli was prominent as a “bat-woman” during the 2019-20 coronavirus pandemic. Shi is a member of the Virology Committee and editor of the Board of Virologica Sinica. Shi was born in May 1964 in Henan, China. In 1987 graduated from Wuhan University, in 1990 post-graduation from Wuhan Institute of Virology, Chinese Academics of Sciences, and in 2000 completed a Ph.D. from France. In 2005 it was found by her team that bats are a natural container of SARS-like coronavirus which is SARS-CoV viruses [3], from bats with Human Immunodeficiency Virus. Her team collected samples of horseshoe bats all over China and showcased their findings that the SARS coronavirus existed in the bats’ community in a cave in Yunnan province. Shi was interviewed with Scientific American in March 2020 and called China’s “Bat Woman”. The US came into action by sending two diplomatic backs to Washington to warn about management weaknesses and safety at the Wuhan Institute of Virology and also warn that the laboratory is working on bats’ coronavirus and the risk of human transmission of a new deadly SARS-like pandemic. Fig. 1. shows the COVID-19 timeline from the origin of the pandemic. More than 200 countries got affected by this pandemic across the world [12]. When compared with SARS-CoV, that spread to 12 countries including the U.S. (total cases confirmed: 8,096 and deaths: 774) [13]. Similarly, MERS-CoV spread to 27 countries (total cases confirmed: 2,494 confirmed and deaths:858) [14].

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Fig. 1. COVID-19 timeline from the origin [11]

B. Effect of COVID-19

Donald Trump USA President stopped funding WHO: SARS coronavirus, a deadly disease that exploded out of China's wildlife market ('wet-blood'). More than 8000 people in the world were infected by SARS and 800 were killed in the winter of 2002-2003. Michael Richard Pompeo, Secretary of State of USA dictated that COVID-19 stems just such Chinese 'wet-blood' wildlife market [4]. Corona Virus was generated in Wuhan City Biological Laboratory in China. The scientist died from biting by the bat. Chinese laboratory conducted a test of coronavirus generated from bats as they captured several bats and generated viruses to kill a human being. The suit was filed against Chinese Authorities for a \$ 20 Trillion for a coronavirus outbreak by American Lawyer Klyman and his Advocacy Group. The claim was more than China's GDP. China is accused of aiding and abetting death. Conspiracy to cause injury and death, negligence. Wrongful death assault and battery and "support to terrorists. In the year 1925 biological weapons were banned as it is a terrorist-related weapons for the destruction of masses.

Tedros Adhanom Ghebreyesus, Director-General WHO declared Corona Virus an epidemic on 11th March 2020. He praised the Chinese officials for the transparency they demonstrated. WHO director-general Tedros Adhanom Ghebreyesus praised Chinese officials for "the transparency they have demonstrated." But yet China has lied about its number of cases and deaths despite emerging consensus [5].

WHO Director-General 16th March 2020: The emphasis has been laid down on covid-19 preventive measures: Backbone escalation in testing, isolation and contact tracing, social distancing measures helping to reduce transmission, hand washing and coughing into an elbow, comprehensive approach of all the countries, to break the chain of transmission-prevent infections and save lives, testing, and isolation. Fire cannot be fought blindfolded. Simple message test for every suspected case to show symptoms of Covid-19 WHO shipped 1.5 million tests to 120 countries [6]. Adequate care is to be provided to the affected person. Priority must be given to patients and old age with mild diseases must isolate themselves at home. The medical mask must be worn by both the patient and caregiver. Infected people can infect others so at least two weak required after symptoms disappear [7]. Being a serious disease and high risk for over 60 years, young people, including children. The new clinical guidelines for children, older people, and pregnant women. Coronavirus has affected the countries having advanced health systems among

populations of malnourished children and lower immunity systems. Every individual effort to stop transmission, and an act of solidarity washing hands decrease the risk of infection spread in the community and around the world. Refrain to hoard medicines and essential items, contribute to solidarity response funds of covid-19 for providing support for research and development, supplies for health workers, and to buy diagnostic test kits. The WHO & ICC suggested to global citizens to guard their help workers and local communities to provide support for the production and distribution of essential supplies [8].

China President Zing Ping: The coronavirus was prepared in the Wuhan laboratory. The Chinese government made a conspiracy and did not disclose the true picture to the WHO Director-General was misled by the China President. There is a rich cultural history of over 3500 years, transportation hub, seafood market, international airport Wuhan Tianhe, direct flight to 5 continents over 120 destinations, Haunan Seafood Market in Jiangnan district a retail space of over 50,000 square meters, other animal products were also sold, illegally traded after smuggled from other countries. A virus was made from animals to unidentified humans. The symptoms were reported as early as on 8th December 2019. Health authorities were alerted but silenced. Dr. Li Wenliang, 34 years old eyes specialist was quarantined. It was identified on 1st January 2020 by US CDC that outbreak responsibility lies with the wet animal market. The Chinese officials reported that these pneumonia cases were traced from the Haunan seafood market and downed shutter. On 5th January 2020, the WHO encouraged global travel and continue trade with China. On 11th January 2020, it was reported that Coronavirus spread in many countries and suggested that it is spreading at a high rate from the human-to-human transmission of the virus [9].

Role of WHO 5th May 2020: Infection Prevention and Control (IPC), Nurses and Midwives, clean care is in their hands and saves lives, hand hygienic infection prevention. The core component of the IPC Program was to provide complete health care facilities and to further monitor its progress with respect to its full implementation. The WHO declared the year of nurse and midwife in 2020 to recognize their main contribution to strengthening quality health systems.

C. India's Steps to fight Corona Virus

Sh. Narinder Modi Prime Minister of India on 21st March 2020 Janta Curfew, one day Janta curfew was announced by the Prime Minister which was followed by the Indian people and ring bells from the balcony at 5 pm. Ordinance regarding Amendment in Epidemic Act, 1997 on 22nd April 2020: Punishment to accused against doctors, nurses and paramedical staff and Asha health workers, police officials. Punishment Minimum punishment from 3 months to 5 years and fine from Rs 50000 to one lac for hurt and maximum from 6 months to 7 years and fine from one lac to 5 lacs for grievous hurt.



The cognizance offense is non-bailable. Establishment of a special court for deciding the case within one year. The life insurance of Rs. 50 lacs of the persons involved in corona-19 providing services of doctors, nurses, sweepers, paramedical staff, and police officials. Lose if any caused to the property of officials involved in fighting Coronavirus double the amount of loss will be recovered from the accused. Special kits prepared in Gurugram cyber city in Haryana @ Rs.380/- which are cheaper than Corona rapid test kits. Infectious diseases spread from person-to-person cough, sneezing, cold, tissues used use mask, wash hands frequently from soap or alcohol, do not touch nose, mouth, and eyes, and do not spit on the floor. Fight against coronavirus, public health system, digital ecosystem, and approx. 186,000 isolation wards.

Video conference of Sh. Narinder Modi, Prime Minister with Chief Ministers on COVID-19 strategy and extension of lockdown on 27th April 2020: This was the fourth interaction since 27th March 2020. The total number of coronavirus cases increased to 28380 including 21,132 active cases, and 6,362 cured discharged migrated patients and killed 886 people.

Discussion on starting economic activities during the lockdown in the States was also held. Some Chief Ministers were in favor of extending of lockdown and some were in favor of the opening lockdown with certain conditions. There is a great need for the economic battle to fight coronavirus. It was highlighted to the Chief Ministers to enforce the prescribed guidelines strictly in the coronavirus hotspot. Relaxation with the collective efforts of Centre and State Governments to be given to the green zone. The North Eastern States expressed extension of lockdown beyond 3rd May 2020 with certain conditions. The Prime Minister expressed that the Indian Government has taken the wise step of lockdown timely and saved the lives of people as COVID-19 badly affected the world [10]. The danger of the virus and constant vigilance is of paramount importance to be followed.

Red, Orange & Green Zones: Union Health Minister Dr. Harsh Vardhan, has declared 130 red, 284 orange, and 130 green zones districts across the country. The green zones are covered and do not have reported fresh cases within 21 days (earlier 28 days). Orange Zones mean few cases and red zones mean a large number of cases.

Spreading of Social Distancing Mantra: Sh. Narinder Modi has suggested the social mantra for all “do-gaj-doori” should be a life lesson for all. Besides this masks or face covers should become a major part of our life. Emphasis was also given to using a ‘hamcha’ mask of white color covering the mouth and nose as an easy precaution against coronavirus. It was also discussed that door-to-door screening of the people must be conducted to effectively control the coronavirus. The students stuck in Kota; Rajasthan from West Bengal was also discussed. The Fiscal Responsibility and Budget Management (FRBM) Act must be amended to provide financial help to States. Providing Personal Protective Equipment (PPEs) Kit and other medical equipment for the state’s healthcare warriors is a must. Prime Minister suggested preparing a State-wise exit policy for the

Red zone, Orange zone, and Green zone and advised that lockdown may continue to exist in hotspots and red zone and gave importance to the economy and fight against Coronavirus Covid-19. That lockdown has been proved helpful in controlling the spread of the coronavirus. On 2nd May 2020 Union Health Minister Sh. Harsh Vardhan apprised those 300 districts are free to districts in the country. 297 districts have no hot spot, and only 127 districts have Covid-19 hotspots or red zone. Special trains for Migrants Workers: Migrant workers are to be sent to their home state through special trains.

5th Virtual Interaction through Video Conferencing: The Prime Minister of India convened a meeting of all the Chief Ministers on 11th May 2020 for taking necessary preventive steps to fight against the Coronavirus through 5th virtual interaction video conferencing. Discussions were held on ways for containment strategy and to boost economic/financial activities in a phased manner after 54 days period of lockdown on 17th May 2020. Keeping in view the alarming Covid-19 epidemic the center has classified 733 districts as 130 (red), 284 (orange) and 319 (green) zones as the most affected States are Maharashtra at 20,228, Gujarat at 7796, Delhi at 6542, Tamil Nadu at 6535, Rajasthan 3708, Madhya Pradesh 3614 and Uttar Pradesh 3373 cases have been reported.

Recent Statistics [15]: As per the WHO report 51 crore coronavirus cases have been identified leading to approximately 62 lakhs death. The United States is at the top with nearly 8.09 crore cases, and India is on 2nd with 4.31 crore cases. Many new cases are now being again seen nearly 3.5 lakhs.

II. PREVENTIVE MEASURES

No specific treatment is available for curing COVID-19 but it is much more important to take preventive measures to restrict its further spreading. Preventive measures play an important role at the community and the health care level. Health care workers need to be protected to limit the spread of the disease among co-workers and patients. For protecting the health care workers, they are provided with PPE kits, N95 masks, goggles, and protective suits. The studies revealed that to limit the spread of COVID-19 isolation is a must. For providing necessary medical treatments, regular decontamination of the equipment is mandatory. Careful monitoring is required for all close contacts of the patients for identifying any COVID-19 symptoms. At the level of community, people should maintain social distancing, wear face masks, to follow proper sanitization of hands to ensure hygiene. During sneezing or coughing, they must cover their mouth with a handkerchief or tissue paper. Public gatherings and unnecessary traveling should be avoided. The WHO recommended the rapid testing of COVID-19 cases in collaboration with the private and public sectors [16]. India being the second-most populous country and a developing nation can fight the pandemic successfully only if each one follows the preventive measures in a strict manner [17].

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After so many casualties due to coronavirus, trials were conducted for the development of vaccines that can protect against this deadly virus in 2020. Many vaccinations were developed and tested before being launching them into the market for mass vaccination. List of WHO (World Health Organization) approved vaccinations were Astra Zeneca (Vaxzevria), Covovax, Covishield, Covaxin, Nuvaxovid (Novavax), Sinovac (CoronaVac), Sinopharm/BIBP for the primary doses [18].

Then after a few days, secondary doses are given to ensure the protection and to build immunity. Some of the accepted vaccines available in the US: are Pfizer [20], Moderna, Johnson, and Johnson (Approved through a EUA-Emergency Use Authorization) [19]. The vaccines accepted available in India are Covaxine, Covidshied, and Sputnik.

III. ETHICAL ALERTNESS TO LIMIT THE OUTBREAK OF COVID-19

The public health system should be alert, to safeguard and respond quickly to build trust among the community and provide preventive measures to recoup from any emergencies that arise related to public health. During such outbreaks, if physical meetings would not be possible quickly within a timeframe, then video conference or teleconference serves as a good tool to conduct meetings by the ethics committee.

Research is required for ethical readiness during an emergency outbreak that comprises details about the host/vector description, epidemiology of the disease symptoms, potential treatment strategies, diagnostics validation, safety and efficacy data, transportation and storage of biological samples, preventive measures to be undertaken, teamwork at either public/private sector, as well as regional/national/international levels. To get a rewarding result, last is monitoring all these above. The ethics committee during an emergency must carry out robust ethical reviews. The NDCT Rules [20] were launched in March 2019, during public health emergencies under the Drugs and Cosmetics Act 1940. Special provisions are there to permit the approval process for the usage of unapproved drugs on a fast-track basis to cure or prevent an epidemic. Therefore, ethics alertness ensures care in a phased manner without compromising ethical values and the safety of humans to deal with any emergencies in public health. The vaccination is to be done in fast stages to limit the spread of the covid-19 outbreak. Many global countries are successful in limiting the spread of coronavirus [21]. But still, China again facing a major issue as the cases are still in the grown-up stage.

IV. CONCLUSION AND FUTURE SCOPE

Keeping in view the above study it can be safely concluded that one superpower wants to fight with the nation without arms and ammunition. COVID-19 is a highly infectious disease. This deadly virus has been spread from human to human and killed people globally and no vaccine has been made. The scientists and pharmaceutical companies of the world are busy experimenting with vaccines for the coronavirus to kill this virus. Safety measures have been

advised to maintain distance, wash hands, sanitize, wear masks on the face, and personal protection equipment kit. Proper utilization of services of doctors, nurses, para-medical staff, and deployment of police for maintaining law and order. These persons are called corona worriers and honored by the public for their sincere services. The Government of India has also adopted steps for bringing back the economy on the rail by providing a financial package to the public. There is improvement in health services. The new strategy is to be adopted by the people for smooth functioning in all sectors by breaking the lockdown. However, the lockdown can be opened with certain conditions to be followed by the public. The WHO has also been advising steps to be taken and financial help for the manufacturing of vaccines and allied health facilities. Many vaccines have been developed and recommended by WHO. Future research is needed to develop such vaccines at an early stage to limit the lives lost due to such kinds of viruses in the future. Still, today, there is a need to be precautious against this virus and maintain social distancing to limit its spread further.

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