



The Current Overview of COVID-19 Pandemic in India

Arindam Chakraborty^{1*}, Payel Mukherjee² and Dr Manas Chakraborty¹

¹Calcutta Institute of Pharmaceutical Technology and AHS, Uluberia, Howrah, India

²Gurunanak Institute of Pharmaceutical Science and Technology, Kolkata, India

*Corresponding Author: Arindam Chakraborty, Calcutta Institute of Pharmaceutical Technology and AHS, Uluberia, Howrah, India.

Received: May 26, 2020

Published: June 18, 2020

© All rights are reserved by Arindam Chakraborty, et al.

Abstract

COVID-19 has been declared as a "Global Pandemic" by WHO (World Health organization). It has affected the whole world as well as India. It has been spread almost every parts of the country, crossed more than 1 lac 18 thousands positive cases, more than 3500 patients were deceased and 48500+ patients recovered till May 22, 2020. SARS-CoV-2 (SARS-Severe Acute Respiratory Syndrome) virus mainly responsible for these COVID-19 or Novel corona virus disease. It has affected the Respiratory system and made severe life threat. Ministry of Health and Family Welfare, Government of India and ICMR (Indian Council of Medical Research) and all the States government have provided proper guidelines to the citizens about how to fight against the Corona virus like maintain social distancing, Proper lockdown, Proper awareness like do's and don'ts for people.

Keywords: Corona Virus; COVID-19; India; Guidelines

Introduction

In the month of December, some cases with pneumonia with different etiology reported at Wuhan city in China and after proper study of this virus genetics with Next Generation sequencing (NGS); they confirmed that it is a novel corona virus [1-3]. After that; it outbreaks all over the world. On 30 January, WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC), On 11 March, WHO Director General characterized COVID-19 as a pandemic [4]. The actual source of this life-threatening virus is unknown but some reports trace that the earliest cases might be from a seafood and animal market in Wuhan City. In 2003 and 2012 such type of coronavirus outbreak occurred known as Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) but these SARS-CoV-2 likely comes from animal origin and not previously associated with any disease in human. The current reports suggest that the sources of SARS-CoV-2 are bats and the Pangolin but it is spreading through person to person. Fever, dry cough, difficulties in breathing are the primary and main symptoms, there are some other symptoms like Tiredness, Aches, Sore Throat, Headache, Chills, Diarrhea, Loss of taste in COVID-19 virus disease. The symptoms may come into view 2-14days after exposure [3,5,6]. The incubation period of COVID-19 ranges from 1 to 12.5 days (with median estimates of 5 to 6 days) but can

be as long as 14 days as per current reports. Overall, 82 percent of those are mild, 15 percent of those are severe and 3 percent of those are classified as critical in the world. Due to these infection; patients are suffering from pneumonia, acute respiratory distress syndrome, sepsis. Countries like United States, Spain, Italy, France, and United Kingdom are mostly affected by COVID-19 [7].

Mode of transmission of corona virus in community

The current studies reported that Novel corona virus could easily spread into the community through:

1. Close contact between person to person less than 6 feet or 2 meter.
2. It will be easily transmitted through Respiratory droplets during sneezing, cough, or during speak from the Corona infected patients.
3. If any person touches the infected patient's body and then touches his or her nose or mouth then there will be a chance of transmission [8].

Current situation in India

In India, novel Corona virus has spread to almost all the parts of the country day by day. The most concerned things in India are the high population and density. First positive confirmed case was

reported in Kerala, where a student studying in Wuhan University, China, has been tested positive with the deadly virus [9]. States like Maharashtra, Tamilnadu, Gujarat, Madhya Pradesh, Rajasthan, Telangana and Union territories like Delhi has badly affected and States like Chhattisgarh, Manipur, Meghalaya, these states are comparatively less affected by the COVID-19. Goa became corona free state. According to Ministry of Health and family welfare 66330 active cases, 48533 cured and 3583 deaths were reported till May 22, 2020 [10]. The Union Health Ministry had said that the recovery

rate among those having tested positive for Covid-19 has risen to nearly 40 per cent, from about seven per cent before the lockdown began on March 25. It also said that hospital support was needed by less than 7 per cent patients [19]. Front line health workers like Doctors, Nurses, Pharmacist, Paramedical staff, hospital staffs as well as police and others are fighting against these life-threatening virus [11].

State wise current status in India (Till May 22, 2020) [10]

S. No.	Name of State / UT	Total Confirmed cases	Cured/Discharged/Migrated	Deaths
1	Andaman and Nicobar Islands	33	33	0
2	Andhra Pradesh	2647	1709	53
3	Arunachal Pradesh	1	1	0
4	Assam	203	54	4
5	Bihar	1982	593	11
6	Chandigarh	217	139	3
7	Chhattisgarh	128	59	0
8	Dadar Nagar Haveli	1	0	0
9	Delhi	11659	5567	194
10	Goa	52	7	0
11	Gujarat	12905	5488	773
12	Haryana	1031	681	15
13	Himachal Pradesh	152	59	3
14	Jammu and Kashmir	1449	684	20
15	Jharkhand	290	129	3
16	Karnataka	1605	571	41
17	Kerala	690	510	4
18	Ladakh	44	43	0
19	Madhya Pradesh	5981	2843	270
20	Maharashtra	41642	11726	1454
21	Manipur	25	2	0
22	Meghalaya	14	12	1
23	Mizoram	1	1	0
24	Odisha	1103	393	7
25	Puducherry	20	10	0#
26	Punjab	2028	1819	39
27	Rajasthan	6227	3485	151
28	Tamil Nadu	13967	6282	94
29	Telangana	1699	1035	45
30	Tripura	173	148	0
31	Uttarakhand	146	54	1
32	Uttar Pradesh	5515	3204	138
33	West Bengal	3197	1193	259
	Cases being reassigned to states	1620		
	Total	118447	48534	3583

Table 1: Distribution of cases across various states and UTs of INDIA. Source: Ministry of Health and Family Welfare [10].

Current testing protocol in India

1. Those with any travel history internationally or domestically; have to stay at home quarantine for 14 days, if during this time any symptoms observed then the test should be done. If the results come positive then the patients should be isolated and treatment to be started immediately.
2. For community spreading, if any symptoms observed then the test will be done and if the result come positive then the treatment to be started in isolation area [12].

Testing procedure

In India, ICMR has provided proper testing procedure. There are mainly two types of tests available till now: (a) RT-PCR (Reverse transcription polymerase chain reaction) test, (b) Rapid antibody test.

In RT-PCR test Nasopharyngeal or Oropharyngeal swabs taken as a sample. To find evidence of the virus, PCR used to copy and amplify any segments of viral genetic code in the sample, reagents and enzymes added after thermal cycling, Software used to determine the copies of the target sequence exceeds a threshold, indicating if the novel corona virus present or not.

In Rapid antibody test for the COVID-19 could be used to detect people immune system has COVID-19 or recovered from it. The test could detect evidence of past or present exposure to the corona virus in less than 30 minutes [13].

Prevention measures:

1. Anyone having any travel history should stay at home quarantine for 14 days.
2. Hands should be washed with soap for minimum 20 second or Alcohol based sanitizer should be used after a while.
3. Masks and hand gloves should be used as much as possible.
4. During coughing and sneezing nose and mouth should be covered with elbow or tissue paper should be used and must be threw in closed waste box.
5. Spitting should be avoided anywhere in public place.
6. Phones should be cleaned with disinfectant solution.
7. Direct contact with anyone suffering from cough, sneezing or fever must be avoided and 2 meter distance should be maintained.
8. Mass gathering in any place should be avoided [14,15].

Steps taken by government

Ministry of health and Family welfare of Government of India, ICMR (Indian council of Medical Research), All the State Governments and WHO are working together in this current situation. They provided proper guidelines for the citizens.

1. Government of India introduced "Janta Curfew" On 22th March 2020, for 14-hours as the beginning of a long battle against Corona virus outbreak and the countrymen proved that together they can defeat any challenge [16].
2. From March 25, 2020, Government of India announced 21 days full lockdown and further it extended till May 3, 2020. Keeping in mind the Government extended the lockdown till May 31 which is eventually happened in two phases that was till May 31 and till May 31, but with several restrictions relaxed to boost economic activities [17-19].
3. Proper advices, reports given by news media, print media and social media.
4. Government of India provided all the facilities for Corona testing and treatment by supplying test kits, PPEs for front line medical staff and arranging Beds, Ventilation units for COVID patients [20].

Conclusion

This life-threatening virus caused pandemic in the whole world. Like the other countries in the world, INDIA also affected with the virus. The condition devastated as well. The frontline workers like Doctors, Nurses, Pharmacists, different medical staffs, Central and State Government, Police and all the daily staffs are giving there unconditional labor to fight with corona virus should be acknowledged. All of us should fight together in this situation. All people should follow proper guideline given by the medical bodies. If we all fight together then only we can win over this and save the mankind.

Bibliography

1. Yuen KS., *et al.* "SARS-CoV-2 and COVID-19: The most important research questions". *Cell and Bioscience* 10 (2020): 40.
2. Bai Y., *et al.* "Presumed asymptomatic carrier transmission of COVID-19". *Journal of the American Medical Association* 323.14 (2020): 1406-1407.
3. Anderson KG., *et al.* "The proximal origin of SARS-CoV-2". *Nature Medicine* 26 (2020): 450-452.

4. Novel corona virus (2019-nCoV), situation report 10.
5. Shereen M., *et al.* "COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses". *Journal of Advanced Research* 24 (2020): 91-98.
6. Kachroo V. "Novel coronavirus (COVID-19) in India: current scenario". *International Journal of Research and Review* 7.3 (2020): 435-447.
7. Coronavirus disease (COVID-19) Situation dashboard.
8. Role of front line workers in Prevention and Management of Corona virus English.
9. Sharma M. "First case of corona virus confirmed in INDIA; student tested positive in Kerala". *Business Today* (2020).
10. COVID-19 State wise Status.
11. Bureau, "Only 0.33 percent COVID-19 patients are on ventilators: Harsh Vardhan". *Times of India* (2020).
12. Whom to test.
13. Yadav PD., *et al.* "Full-genome sequences of the first two SARS-CoV-2 viruses from India". *Indian Journal of Medical Research* 151.2-3 (2020): 200-209.
14. Travelers returning to India.
15. Protective measures against Corona virus.
16. Chandana H and Basu M. "Modi announces 'Janata Curfew' on 22 March, urges for resolve, restraint to fight coronavirus". *The print* (2020).
17. Singh KD., *et al.* "Day 1: World's Largest Coronavirus Lockdown Begins". *The New York Times* (2020).
18. Choudhury SR. "India extends coronavirus lockdown until May 3". *CNBC* (2020).
19. Chaturvedi A. "Second-biggest single-day spike takes Covid-19 cases in India to over 1.1 lakh". *Hindustan times* (2020).
20. Pandit A. "Centre asks states to make Covid-19 medical facilities 'accessible' for the disabled". *Times of India* (2020).

Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

Website: <https://www.actascientific.com/>

Submit Article: <https://www.actascientific.com/submission.php>

Email us: editor@actascientific.com

Contact us: +91 9182824667