“COVID 19- Two Waves & More” What Have We Learnt?

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Abstract:

The first case of SARS-CoV2 admitted on 26th December 2019 in Central Hospital, Wuhan, China. Broncho-alveolar lavage and Polymerase chain reaction of the aspirate showed high abundance of a viral RNA which has 89.1 % nucleotide identity with bat coronavirus previously isolated in China. Soon human to human transmission was observed and the outbreak started spreading. World Health Organisation on 11th March 2020 declared it as pandemic. COVID 19, caused by SARS-CoV-2, a disease we are still struggling to contain. With vaccination drive throughout the world, though the severity in re-infection has come down, but there is still threat by the various variants which are arising from time to time in various countries. The most effective way of preventing the spread of the virus is to keep physical distance from others of at least 1 meter, wearing a well fitted mask, keep hands clean and use hand sanitizer frequently, stay in well ventilated place, avoid crowded place and cough into bent elbow or tissue paper and get vaccinated when once's turn comes. Therefore, we urge people to follow COVID appropriate behaviour properly.

Keywords: COVID 19, SARS-CoV2, COVID appropriate behaviour, Social Distancing

Introduction:

The first case of SARS-CoV2 admitted on 26th December 2019 in Central Hospital, Wuhan, China with history of fever, chest tightness, unproductive cough for 6 days duration. Though initial workup could not reveal any known pathogen causing the disease [1]. Soon few cluster of similar case were seen in close contacts [2]. Later broncho-alveolar lavage and Polymerase chain reaction of the aspirate showed high abundance of a viral RNA which has 89.1 % nucleotide identity with bat coronavirus previously isolated in china [1]. Predominantly COVID 19 a disease which involves respiratory tract, though other rare presentations are also reported [3].

WHO's (WORLD HEALTH ORGANISATION) GUIDANCE:

On 31 Dec 2019 WHO's country office in China picked up a media statement of Wuhan Municipal Health Commission from their website that a cases of 'viral pneumonia' in Wuhan [4]. On 1st January WHO sought information regarding the cases of pneumonia from Chinese authority and on 3rd Jan 2020 information was provided to WHO by Chinese authority. On 5th January, WHO released its first report on disease outbreak, and advised authorities to respond on public health measures and also said "WHO's recommendations on public health measures and surveillance of severe acute respiratory infections and influenza are applicable

to this outbreak [4]. On 9th January, WHO reported that Chinese authority has confirmed the outbreak is caused by novel coronavirus.

Possible human to human transmission was observed and the outbreak started spreading day by day to Japan (first case- 15th Jan 2020), USA (first case-21st Jan 2020) and in other countries as well [2,4].

Pan American Health Organization (PAHO) on 24th January 2020 urged all countries to be prepared to detect early, isolate and care for infected patients with new coronavirus. On 29 Jan 2020, use of mask in community, during home care and hospitals to be followed as stated by WHO. On 30th Jan 2020 WHO declared this outbreak of novel coronavirus a public health emergency of international concern (PHEIC), which is WHO's highest level of alarm. That time, only 98 cases and no deaths till date was recorded in 18 countries outside China. WHO-China Joint Mission on 16 Feb 2020 stressed on early case detection and isolation, contact tracing and monitoring/quarantining and community engagements are very very important and must be followed everywhere. On 11th March 2020 Deeply concerned both by the alarming levels of spread and severity, WHO gave statement that COVID-19 could be characterized as a pandemic. The Director General, WHO stressed that "all countries can still change the course of this pandemic" if they "detect, test, treat, isolate, trace, and mobilize their people in the response" [4].

Thus a outbreak of pneumonia cases from Wuhan city, China became an pandemic and World Health organization kept on providing information from time to time based on scientific evidence available on that time and updates and also precautionary measures which are required to be followed by people to contain the spread of the disease. But in reality, we have observed various incidences where proper COVID appropriate protocols were not followed [4].

HOW COVID 19 SPREAD STARTED IN INDIA:

The first confirmed case of COVID 19 was found on 30th Jan, 2020 from Kerala, where 3 medical

students returned from Wuhan, China [5-7]. Lockdown was announced on 23rd March in Kerala and 25th march pan-India. Starting from the incident of Italian tourist group, people with history of travel from foreign countries, their close contacts, Sikh preacher with history of travel to Italy attending Sikh festival at Anadapur sahib from 10-12th March, tablighi jamaat religious congregation in early march, around 4000 stranded pilgrims returned from hazur sahib in Nanded, Maharastra, India and many more reported and unreported incidences caused the infection to spread [8-14]. Infection rates started to drop in September 2020 [15]. Second wave of increase in cases were noted in march 2021, this time it was in its devastating form with shortage of health care facilities, hospital beds, oxygen supply. On 30th April, India became the first country to register 400000 new cases in a single day [16,17].

India started vaccination on 16th January 2021 with Covisheild, and Covaxin, later Sputnik and Moderna vaccines were also introduced. On 21st Oct 2021, India experienced administering 100 crore (1 billion) doses of COVID 19 vaccine [18-21].

INAPPROPRIATE BEHAVIOUR:

Though initially we were not aware of various aspects of COVID 19 including its etiology, pathogenicity, clinical presentations, how to treat, how to contain the spread of the virus, what precautionary measures to be taken, but WHO and all national government and organisations including ICMR (Indian Council of Medical Research) & MoHFW (Ministry of Health & Family Welfare) in India has taken steps and kept on informing us regarding COVID appropriate behaviour. But are we really following it?

LOCKDOWN/ UNLOCK:

Though the lockdown was implemented by countries to stop the spread of virus, we have witnessed many examples of breaking the norms of lockdown and people having get together throughout the world. We have also seen people not maintaining social distancing while in gradual unlocking phase, thereby helping the virus to spread easily from one person to another [2,22,23]. We have seen two big waves in India and there is

still threat for more waves if proper COVID appropriate behaviour is not followed while in unlock phase.

SOCIAL DISTANCING:

Though the authority implemented various policies to maintain social distance during lockdown to run emergency or essential services, we have so many examples of people gathering together, maybe for function, entertainment, spiritual and ritual activities, games, shopping, markets etc without maintaining proper interpersonal distance, thus it became easier for the virus to spread [22,24]. Even on present situation, when there is no lockdown and government is providing appropriate guidelines to run the institutions and in the presence of threat by variants of COVID 19, it becomes more important to maintain social distance, as it will be easier for the new variants of virus to infect more people easily.

IMPROPERLY WORN MASK:

We can see many people wearing mask but not properly wearing it. You will see people having hanging mask in the neck, covering half opening of mouth, covering face only with nose not covered, using transparent mask, loose mask causing full air circulation from back of mask [22,24]. Thus, it does not serve the purpose of wearing a mask and it does not prevent the virus to spread.

PULLING DOWN MASK WHILE TALKING:

A very common practice done by the patients and lot of people in the world that trying to pull down mask while talking. Thus, neutralizing the benefit of using mask and maybe causing more harm for the nearby people and allowing the virus to spread. Ideally people should cover their face properly while talking especially when they are with other people but people are practicing it wrong [22,24].

COMING NEARER TO NEXT PERSON WHILE TALKING:

Another very commonly observed activity is that people coming nearer to the next person while talking. If a person is wearing mask and talking to

next person, there is a tendency to go nearer to the next person while talking. People should raise their volume of voice while talking if his/her voice is not audible by the next person, instead they go nearer to the next person, thus decreasing social distance and increasing the risk of virus transmission [22,24].

GATHERING/ MEETING:

MoHFW has issued several guidelines from time to time regarding the maximum permissible limit for any gathering, social ceremonies, cultural affairs depending on the situation of COVID cases on particular time. But we have seen many occasions these protocols were not followed. We should try to avoid gatherings or meetings, whenever possible virtual meetings should be preferred. Though sometimes these gatherings are important for some or other reason, we should attend these meetings properly following COVID appropriate protocols but in reality you will find proper social distancing is not maintained. Many clusters of cases, epicenters were seen during prior two waves of COVID 19 following attending these gatherings [22,24].

TABOO:

There are many examples of common belief that protocols like quarantine of contacts, isolation of the asymptomatic cases, admitting the mild disease and keeping the positive cases admitted for the full infective period is not for the benefit of people, even people are reluctant to seek help from health care facility for symptoms of COVID 19 unless seriously ill, they think that for mild symptoms like mild cough, cold, if they seek help from health care facility, they will be quarantine for 14 days.

VACCINATION:

India began vaccination drive since 21st January 2021, in phased manner. In first phase, providing vaccine to healthcare workers and front-line workers including police, sanitary workers, paramilitary forces [25]. Though initially there was vaccine hesitancy particularly in rural and tribal parts of India, but constant government and public awareness campaigns has reduced the hesitancy and studies published from Delhi showed vaccination acceptance of 79.5% and another

study published from West Bengal showed vaccination acceptance of 77.27%^[26,27].

India registered new world record of administering more than 1 crore doses of vaccine in a single day on 27th august 2021^[28]. On 21st October, India reached 1 billion total vaccine doses^[29]. In India, 87% of eligible population has received at least one dose of vaccine and 55.25% of adult population in India are fully vaccinated. Indian government's "Har Ghar Dastak" campaign has also strengthened vaccination strength^[30,31].

As the population is getting both the doses of vaccination, there is tendency of self believe that if a person is immunized, there is no need for COVID appropriate behaviour, thus again the chances of spreading the virus will increase and there is threat for resurgence of variants of SARS-CoV2 epidemic.

OVERCONFIDENCE:

Till date as many people has either contacted the virus and recovered or many people are immunized, they think that they will not develop any serious symptoms, thus neglecting the protocols. But as there is still threads of variants of the virus, we all should remember that if one person is getting the infection and if he spreads the virus to 10 people, those 10 people may not have good immunity and all of them may not recover from the disease thus they will endanger life of his/her nearby people, elderly family members by their careless behaviour.

THREAT BY VARIANTS OF COVID 19:

Several variants have appeared during this Coronavirus pandemic and it has been proved the role of these variants in resurgent of several waves during this pandemic. Multiple variants like B.1.1.7, B.1.351, P.1, B.1.427 and B.1.429 variants. WHO named "B.1.617" as a "variant of concern" (VOC) and it caused spread to more than 40 countries and it played very important role in second wave of COVID 19 from early March 2021^[32].

On 26 Nov 2021, WHO designated B.1.1.529 as variant of concern, named it as Omicron. Omicron has several mutations; There is surge of COVID 19

Cases in every part of South Africa where first case of this variant was identified with increase transmissibility^[33,34].

WHO's Director General's media briefing on 14th December 2021 stated that 77 countries have reported cases of omicron variant, it may be existing in other countries as well even though it has not been detected yet. Omicron variant has started spreading very fast which was not seen with previous COVID 19 variants. Vaccination alone cannot protect a country, we should keep on doing what is known to be protective that is social distancing, use of mask and hand hygiene^[35,36].

As in India till 14th December, 40 cases affected by Omicron variant are being detected, those who returned from foreign tour. There primary contacts are also becoming positive. Though they were quarantined and appropriate actions are being taken. But there is potential threat to resurgence of COVID 19 cases. Therefore, COVID appropriate behaviour is very important to stop further spread^[37].

CONCLUSION:

COVID 19, caused by SARS-COV-2, a disease we are struggling to contain. A dangerous threat to the mankind. It has already done tremendous damage to mankind. With vaccination drive throughout the world, though the severity in re-infection has come down, but there is still threat by the various variants which are arising from time to time in various countries. More recently the Omicron variant. There is still requirement of following proper COVID 19 appropriate behaviours along with doing day to day activities^[2,22-24]. The most effective way of preventing the spread of the virus is to keep physical distance from others of at least 1 meter, wearing a well fitted mask, keep hands clean and use hand sanitizer frequently, stay in well ventilated place, avoid crowded place and cough into bent elbow or tissue paper and get vaccinated when once's turn comes^[34].

Therefore, we urge people to follow COVID appropriate behaviour properly.

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