

Outbreak of Novel Coronavirus Disease (COVID-19) in Pakistan

Mulazim Hussain Bukhari

How to Cite This:

Bukhari MH. Outbreak of novel coronavirus disease (COVID-19) in Pakistan. Biomedica. 2020; 36 (1): 1-4.

With a population of more than 20 crore, Pakistan is the world's sixth largest populated country. Karachi, Lahore, Faisalabad, Gujranwala, Multan and Rawalpindi are the main cities of Pakistan. Islamabad is the capital as a twin city with Rawalpindi. According to the recent news, Pakistan got its first two cases of Coronavirus positive on 25th February, 2020.

Allah Forbid, if it spreads in Pakistan like other unfortunate neighboring countries like China and Iran, we will definitely be in need of an enormous human resource especially health professionals/ doctors and supporting staff. It was until yesterday, 41 flights landed in Pakistan in a week that is making alarming number of travelers entering inside our country. This is the high time; an official letter may be written to the Chinese health authorities to offer generously any kind of help in this crisis.

This is a situation of concern, but we must not give in to panic. The world must also be vigilant when it comes to misinformation and disinformation. Instead of quarantining cities, implementation should be to restrict the movement

advising citizens to stay at home if they have a fever or respiratory symptoms".¹

The coronavirus is spreading more quickly in Europe, the Middle East and other parts of the world than in China where the virus first emerged in the central city of Wuhan at the end of last year. Wuhan is the capital of Hubei province of central China and in terms of population, is the 11th largest city of China. Its population is about one hundred ten million. It has been the capital of China till 1927. Because of the biggest transportation network, it is also called China's Chicago. Wuhan National Biosafety Laboratory (BSL 3&4) is located in Zhengdian Scientific Park of Wuhan Institute of Virology, Chinese Academy of Science in Jiangxia District, Wuhan. Some sources were speculating that the outbreak of coronavirus was spread from level 4 laboratory of Wuhan. How it is possible that outbreak has taken place? Is this a biological terrorism? Is this a part of a Biological war? For all these questions the world should unite to search for the answers.¹⁻³

All of these viruses have been transmitted from one person to another and have been named the Coronavirus Disease (COVID-19) which is confirmed after testing with RT-PCR. Coronaviruses, like all ribo viruses, are the most common cause of common cold and flu which spread in the winter and spring. Like Ebola and the previous Coronavirus, the new virus is feared, but nothing can be said about its risks. This new and unique coronavirus has created a historical and disastrous panic for the world. The Chinese health authorities immediately investigated to this outbreak, resulting in forced isolation of people suspected to have the disease, close monitoring of contacts, epidemiological and clinical data

Mulazim Hussain Bukhari
Department of Pathology
University College of Medicine, University of Lahore

Correspondence to:
Prof. Mulazim Hussain Bukhari
Head, Department of Pathology
University College of Medicine, University of Lahore
E-mail: mulazim.hussain@gmail.com

- Received for publication: 01-03-2020
- Revision received: 27-03-2020
- Accepted for publication: 29-03-2020

for those suspected of infection or those who are infected. "The public to exercise extra caution,

collection from patients, and development of diagnostic and treatment procedures.⁴

Coronavirus is a large family of RNA viruses, ranging from common viruses to COVID – 19. Symptoms resulting from 2019-nCoV or SARS-CoV-2 or COVID – 19 infection at the prodromal phase include fever, cough, and malaise that are considered mostly nonspecific. It also causes cough and pneumonia after a cold, either direct viral pneumonia or secondary bacterial pneumonia, and bronchitis, either direct viral bronchitis or secondary bacterial bronchitis. Fatalities are usually due to dysfunction of the lungs and other physiological systems. Coronaviruses, which are the most common cause of nausea after rhinovirus, are more likely to cause nausea in the winter and spring.^{1,4}

This current outbreak of COVID-19 has evoked the memories of the previous outbreaks of SARS-CoV (Guangdong, China) , MERS CoV (Jeddah, Saudi Arabia in 2012) was attributed to its strong transmission ability under specific circumstances, insufficient preparedness and implementation system of infection control practices in the world and even in China. These outbreaks resulted in few mortalities worldwide; 858 (37%) and 744 (10%) respectively.⁵⁻⁶

The exact cause and etiopathogenesis of this virus still remain a mystery. It is not yet clear whether the disease was first transmitted to humans by animals or through contamination levels by the contact however, close personal contacts between humans is the main source of transmission through breathing and sneezing and infectious methods, such as coughing and physical hand contact.⁷

Laboratory tests with nasal and respiratory tract such as swabs and serum are essential to detect human coronavirus if you have a serious illness or you are suspecting the illness. Antibodies to the virus or antibodies against the virus are detected within the patient, and the virus must be detected by confirmatory PCR. Common laboratory findings on admission to hospital include lymphopenia and bilateral ground-glass opacity or consolidation in chest CT scans. These clinical presentations confounded early detection of infected cases, especially against a background of ongoing influenza and circulation of other respiratory viruses.^{8,9}

Though the mortality rate is not more than 2.5%, as compared to other infectious diseases, but still the hysteria is far more than any other ailment in the world. Every year in Africa, more than five million people suffer from malaria and lose their lives. This year only influenza has affected more than one million Americans out of which one hundred and twenty thousand have to be admitted in hospitals for their treatment while 6,600 Americans reported died of influenza in 2019. So what is the reason that in order to succeed influenza in America, the proposal of complete lock down has not been proposed, but it has been proposed for the coronavirus!

Well the debate may be never ending, but as the panic and mania is at its peak these days, few important things should be remembered during this pandemic. Keep the immunity strengthened and take special care of cleanliness. These infections may be serious in patients whose immune system is compromised i.e. patients with diabetes, blood pressure, tuberculosis, HIV, chronic pulmonary disorders, or any cardiovascular disorders, need more caution than others. Younger children and the elderly need more care. Avoid going to the fish or meat markets and stay away from pets and animals kept at home. Be careful about the family and relatives of people who have had the virus. Avoid touching your eyes, nose and mouth with non-washed hands.

The Government of China is much vigilant and appears to have moved much faster this time around the current outbreak as compared to previous SARS. World Health Organization also gave timely alert on the first reported case of 2019 Co-V whereby the entire city of Wuhan, have been placed under quarantine.

Pakistan is sharing the borders and many business agreements like CPEC with China. Global health experts are already cautioning Pakistan and other countries to prepare for China's outbreak of new virus. Pakistan has maintained the detectors at its 17 entry points and in major cities like Islamabad (PIMS), Lahore (Mayo Hospital) and Karachi (Jinnah Hospital). Another major issue causing a state of fear and panic is the deficiency of public trust with Government measures. Control measures work only if people abide by them. And people are much less likely following the orders when they don't trust that the health authorities

and the government is more concerned with containing bad media than with defeating the virus.

The credit goes to the international administrations who have managed to keep some of the world's leading infectious disease experts in key roles at top authorities. WHO, Centre for Disease Control, the National Institutes of Health and the Food and Drug Administration are responding to the crisis by developing vaccines, deploying experts and collaborating with response teams in affected regions?

The public, at large, in Pakistan should follow the government's directions so the worst-case scenarios may yet be averted. Intense media campaigns are running with an intention to create massive awareness for halting the spread. As a common person, we all should avoid touching eyes, nose and mouth with non-washed hands. Cover your mouth or peel off a tissue while you cough, and then dump the tissue in the trash. Wash your hands often with soap and water for at least 20 seconds. If soap and water are not available, use an alcohol-based hand sanitizer. Avoid close contact with sick people. When you are sick, stay home in quarantine for at least 14 days.

Is the coronavirus so terrible that to deal with it, a complete lock down is the only option? This is the most important question, if the answer is found, many more questions are answered. In the past Spanish flue, cholera and plague have been known for killing masses all over the world but the world never opted for complete lock downs. Ebola and zika viruses are no more a forgotten past; how zikavirus was made and spread, will remain mysterious forever.¹¹⁻¹²

As of 26th March, 2020, the number of confirmed cases in the country is 1296, with 23 recoveries and 9 deaths Globally, USA has left China and Italy far behind in reported positive cases (85,612) while the death toll is still highest in Italy (8,215). The virus outbreak has become one of the biggest threats to the global economy and financial markets because of the massive lockdowns. There are large-scale school closures in almost all effected countries on three continents with hundreds of millions of students around the world facing upheaval on this educational disruption. It may be the war for *survival of the fittest* and surely Coronavirus 2019 is certainly not the last time the world is facing such a massive crisis and disaster,

the adverse outcomes of which may go a long-way to decades.

REFERENCES

1. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges [published online ahead of print, 2020 Feb 17]. *Int J Antimicrob Agents*. 2020; 105924.
2. WHO. Novel coronavirus – Thailand (ex-China). Geneva: World Health Organization, 2020. Available online at: <https://www.who.int/csr/don/14january2020-novel-coronavirus-thailand/en/> (Last accessed on March 26, 2020).
3. China National Health Commission. Update on the novel corona virus pneumonia outbreak. Beijing: China National Health Commission, 2020. Available online at: <http://www.nhc.gov.cn/xcs/yqfkdt/202001c5da49c4c5bf4bcfb320ec2036480627.shtml> (Last accessed on Jan. 24, 2020).
4. Habibzadeh P, Stoneman EK. The novel coronavirus: A bird's eye view [published online ahead of print, 2020 Feb 5]. *Int J Occup Environ Med*. 2020; 11 (2): 65–71.
5. Viboud C, Eisenstein J, Reid AH, Janczewski TA, Morens DM, Taubenberger JK, et al. Age- and sex-specific mortality associated with the 1918–1919 influenza pandemic in Kentucky. *J Infect Dis*. 2013; 207: 721–9.
6. WHO. Middle East respiratory syndrome coronavirus (MERS-Co-V). Geneva: World Health Organization, 2020. Available online at: <http://www.who.int/emergencies/merscov/en/> (Last accessed on Feb 28, 2020).
7. A novel coronavirus outbreak of global health concern. 2020. Available online at: www.thelancet.com. (Last accessed on Feb 27, 2020).
8. WHO. Novel coronavirus (2019-nCoV) situation report- Geneva: World Health Organization, 2020. Available online at: <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200122-sitrep-2-2019-ncov.pdf> (Last accessed on Jan 23, 2020).
9. WHO. Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected. Geneva, World Health Organization, 2020.

Available online at: [https://www.who.int/internal-publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/internal-publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected) (Last accessed March 22, 2020).

10. Borza T. Spanish flu in Norway 1918-19. *Tidsskr Nor Laegeforen*. 2001; 121 (30): 3551-4.

11. Zawilińska B, Kosz-Vnenchak M. General introduction into the Ebola virus biology and disease. *Folia Med Cracov*. 2014; 54 (3): 57-65.
12. Musso D, Gubler DJ. Zika Virus. *Clin Microbiol Rev*. 2016; 29 (3): 487-524.

The author (MBBS, DCP, CHPE, M. Phil, FCPS, Ph.D and Post-doc.) is a Consultant Histopathologist and has over 100 publications in peer-reviewed indexed journals. He has keen interest in Microbiology and infectious diseases and has published many Editorials, Short Communications and Commentaries on the topic since the outbreak has emerged.