

Covid - 19: A Dreadly Global Impact On Humanbeing

N. J. Shammi

Professor, Department of
Pharmacology & Therapeutics,
Barind Medical College, Rajshahi,
Bangladesh.

Correspondence to : N J Shammi
nasrin.jahan.shammi@gmail.com

Cite this as: BMCJ 2021; 7 (1): 1-3

Received: 22 November 2020
Accepted: 30 November 2020

In 1960, David Tyrrell, a virologist did a research work at the common cold unit in Wiltshire, England. He studied nasal washings from volunteers. The researchers found that they could grow several viruses associated with the common cold but not all of them. One such sample, referred to as B-814, turned out to be coronavirus.¹ The samples sent to Dr. June Almeida (virologist), who identified first human coronavirus.² Coronavirus - a family of viruses that now includes SARS - CoV-2, the cause of the current Covid-19.³ On December 30, 2019, Dr. Li Wenliang first reported some positive results of SARS (severe acute respiratory syndrome) at Wuhan in Hubei province, China in an online chat group on WeChat. But he did not formally report to the authorities. Dr. Zhang Jixian is considered the first doctor to report the novel coronavirus, Covid-19. After having a senior couple with fever and cough on December 26, 2019, she demanding a CT scan of chest of them. In CT scan she found differences from pneumonia caused by common viruses. After then, the hospital received several patients who also developed same symptoms and same lung images. Patient's condition

deteriorated rapidly, most of the patient was died. National Health Commission (NHC) get it seriously and World Health Organization (WHO) also to be concerned about outbreak of new viral disease.⁴ By March 11, 2020 the WHO labeled Covid-19 a pandemic.

There are more than 36,000 people has killed worldwide as of March 30, 2020 due to affected by coronavirus. Brazil, Italy, Peru, Russia, America, United Kingdom, Mexico, Colombia also included in global mortality data.⁵ This health issues came to close all people in the World. Surprisingly, the world has seen a rapid spread of Covid-19, around 6 million cases are infected and close to 400000 deaths.⁶ Older adults, people with diabetes mellitus, heart disease, lung disease or immunocompromised patients are on risk zone.

The name coronavirus is derived from the Latin word "Corona" meaning crown or halo, in reference to the spike peptomers surrounding the particles. SARS-CoV-2 is an enveloped, RNA beta coronavirus belonging to the coronaviridae family.

The genome is packaged inside a helix capsid formed by the nucleocapsid protein. Cellular entry of SARS-CoV-2 depends

on the binding of glycoprotein spike(S) to angiotensin converting enzyme-2 (ACE-2) receptor located on the host cell surface. Then the genetic material of the virus is released. Infected cell reads RNA and begins to make protein. New protein form copies of virus. New copies carried to the outer of cell and infect other host cells.⁷ ACE-2 receptor facilitates zoonotic transfer because this viruses can engage ACE-2 from different animal species. Coronavirus are known to affect animals, bats being a prime carrier. Other carriers are camels, civet cats.⁸ There is currently no vaccine or specific treatment for Covid-19. Only supportive and symptomatic treatment is applied. The infected person experiences symptoms such as dry cough, fever, headache, fatigue, muscle or body aches, sore throat, runny nose, vomiting, diarrhoea and loss of taste and smell or they may show no sign of infection at all. Patient should take lots of rest, drink plenty of fluid to avoid dehydration. The virus move down into the lung via trachea, affects body's immune system and create pus in lungs. Infected person develops a condition similar to pneumonia. The oxygen level drops significantly and breathing difficulty occurs. The patients are put on ventilator and some do not survives. The virus can travel to heart causing heart attack. Blood clots are common, kidneys are also damaged.⁹ When an individual with coronavirus coughs or sneeze, the tiny droplets can float through the air and enter another person through nose and mouth. So, masks are recommended as a preventive measure. Social isolation for 14 days is the mainway to prevent the disease from spreading. Quarantine and lockdown were implemented in cities with high rates of infection and mortality.

A health care personnel takes nasopharyngeal swab, throat swab, or saliva as a sample for diagnosis of coronavirus. The U.S.

(United State) Food and Drug Administration (FDA) approved RT-PCR test (reverse transcription polymerase chain reaction) to detect genetic material of virus and antigen test for detecting certain proteins in coronavirus.

Covid-19 is still new and relatively unstudied, do not have a vaccine. As it is a contagious disease, so creates civilian panic. Scientists are trying to categorize the coronavirus genome to understand its transmission pathway and any mutations is developed along the way.

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