



EDITORIAL

OUTBREAK OF CORONAVIRUS DISEASE (COVID-19)

Navin Kumar Chaudhary

PhD

Dept. of Microbiology, Chitwan Medical College, Bharatpur-10, Nepal

E-mail: chaudhary.navin@cmc.edu.np

DOI: <https://doi.org/10.3126/jcmc.v10i1.28059>

INTRODUCTION

Tyrrell and Bynoe in 1965 discovered a virus (B814) from an adult with a common cold. In the same year, Hamre and Procknow grew a virus (229E) in tissue culture from human with cold. Electron microscopic study by Almeida and Tyrrell revealed similar morphology. This new group of viruses was named coronavirus (corona denoting the crown-like appearance of the surface projections).¹ Coronaviruses are enveloped RNA viruses that are distributed broadly among humans, other mammals, including camels, cattle, cats, and bats. It causes respiratory, enteric, hepatic, and neurologic diseases. Six coronavirus species are known to cause human disease. Four viruses 229E, OC43, NL63, and HKU1 are prevalent and typically cause common cold symptoms in immunocompetent individuals. The two other strains severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV) are zoonotic in origin and have been linked to sometimes fatal illness.² Coronavirus infections occur more often in the winter and spring than in the summer and fall. Coronavirus infections are responsible for 35% of the viral respiratory infection during epidemics and 15% of adult colds.¹ In 2002 and 2003 Severe acute respiratory syndrome (SARS) in the Guangdong state of China for the first time. Approximately after a decade SARS and another highly pathogenic CoV, Middle East Respiratory Syndrome Coronavirus (MERS-CoV) has emerged in the Middle East countries.³

Outbreak of respiratory illness caused by a novel (new) coronavirus first identified in Wuhan, Hubei Province, China. Additional cases have been identified in other parts of world and has been the focus of global attention.³ This virus was named as 2019-nCoV by WHO on January 12 and COVID-19 on 11 February 2020.⁴ COVID-19 belong to genus Betacoronavirus of group 2B, subfamily Coronavirinae, family Coronaviridae with at least 70% similarity in genetic sequence to SARS-CoV.⁵ Several known coronaviruses are circulating in animals that have not yet infected humans. Rarely, animal coronaviruses can infect people and then spread between people such as with MERS, SARS, and now with COVID-19. Much is unknown about spreads of COVID-19. Present knowledge is based on what is known about similar Coronaviruses. SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. On January 22, 2020, novel CoV has been declared to be originated from wild bats. However, a growing number of patients reportedly have not had exposure to ani-

mal markets, indicating person-to-person spread is occurring. Most often, spread from person-to-person happens among close contacts (about 6 feet).⁶ Older adults and people who have severe chronic medical conditions like kidney, lung or heart disease seem to be at higher risk for more serious COVID-19 illness.⁶

Common signs of infection include fever, respiratory symptoms, cough, shortness of breath and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death. The estimated number of travelers during the 2020 spring festival has risen 1.7 folds when compared with the number traveled in 2003 and reached to 3.11 billion from 1.82 billion. This large-scale travel traffic has also created favorable conditions for the spread of this difficult-to-control disease.³ As of March 12, 2020, there are 125048 confirmed case globally. China alone has 80981 with 3173 deaths. Outside of China 44067 confirmed with 1440 deaths. Case has been reported from 117 Countries/territories/ areas. WHO has declared controllable pandemic.⁷

Nepal stands in the list of least affected countries globally with just one confirmed case. Ministry of Health and Population announced that the first case of Coronavirus was detected in Nepal on January 23 from 32-year-old man, a Nepalese student at Wuhan University of Technology, Wuhan, China, with no previous history of comorbidities, who landed Nepal on 5th January from Wuhan and has been already recovered. The test of throat swab and the blood sample sent to the WHO collaborating center, Hong Kong, prove that the suspect contracted the virus in China.⁸ Also, on February 16, 175 Nepalese students were evacuated from Hubei province in China and were monitored at the quarantine zone in Kharipati, Bhaktapur. After 14 days, they were back to home after the negative tests of COVID-19 virus.

Since the WHO declared the Covid-19 outbreak a pandemic and urged countries to take precautionary measures. The Nepal government is becoming very serious regarding the issue of Coronavirus and spreading the high amount of awareness among the Nepalese citizen. The Nepal government has established a health desk at Tribhuvan International Air port (TIA) to closely monitor the disease and decided to temporarily stop issuing on-arrival tourist visas to all countries and has put an

end to all spring mountaineering expeditions, including Everest ascents. The visa suspension, which excludes diplomatic and official visas, will come into effect on March 14 and last until April 30. The temperature screening (via thermal cameras) and self reporting has been already implemented on TIA. Already closed the border point of Tatopani since January 31, 2020 due to the outbreak of novel Coronavirus and, as there is an open border between Nepal and India, now they are being strict on people (Indians or third countries nationals) entering the country via land routes through India due to high influence of COVID-19. Now, they've fixed some border points (Raxaul, Sunauli, Karkarvitta, Jogabani, Gaddachauki and Jamunah), only through which they're allowed to enter Nepal. Due to the high risk of COVID-19, government've suspended all the promotion-

al events and activities related to Visit Nepal 2020 and to prevent community transmission; closing schools, cancelling mass gatherings and spreading awareness and safety regarding the outbreak of novel Coronavirus.

There is currently no vaccine to protect against COVID-2019. The best way to prevent infection is to avoid being exposed to this virus. There is no specific antiviral treatment for COVID-2019. People with COVID-2019 can seek medical care to help relieve symptoms. Prevention of spread of infection include regular hand washing, covering mouth and nose when coughing and sneezing, thoroughly cooking meat and eggs. Avoid close contact with anyone showing symptoms of respi-

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