

Author(s) retain the copyright of this article.

Perspective

Difference between influenza and coronavirus

Pasteur Louis Robert*

Department of Microbiology, Al Omar-massachus University, Oshawa Ontario, Canada.

Accepted 09 September, 2021

INFLUENZA AND CORONAVIRUS

Influenza and Coronavirus are two types of viruses; they are RNA viruses that are enveloped and obligate parasites that replicate inside a specific host organism. Both attack the respiratory system of human beings and show similar symptoms. Coronavirus infection is more dangerous than the influenza virus infection. Usually all viruses are infectious agents. Almost all types of living organism are affected by the viruses and cause diseases. The crucial difference between influenza and coronavirus is, Influenza virus is a negative-sense single-stranded RNA virus that causes seasonal flu epidemics each year; while coronavirus is positive-sense single-stranded RNA virus that causes health illnesses ranging from pneumonia and common cold to severe Middle East Respiratory Syndrome (MERS). And the Severe Acute Respiratory Syndrome (SARS).

Similarities between influenza and coronavirus are:

- Both influenza and coronavirus are single-stranded RNA viruses,
- They are enveloped viruses,
- The respiratory system of humans is attacked.
- Severe diseases caused by both virus and mild symptoms such as fevers, tiredness, coughing, and pneumonia
- Both viruses are spread by contact, fomites, and droplets.
- Influenza viruses and COVID-19 have similar disease symptoms.

Difference between influenza and coronavirus

Influenza:

1. Spreads rapidly

2. Incubation period shorter
3. Mortality rate low
4. Negative-sense, single-stranded RNA virus
5. Serial interval shorter
6. Viral shedding in the first 2 days than last for 1 week
7. Kids are high susceptibility

Coronavirus:

1. Spreads slowly
2. Incubation period longer
3. Mortality rate high
4. Positive-sense, single-stranded RNA virus
5. Serial interval comparatively longer
6. During Viral shedding patients remain contagious for much longer than with those with other flu.
7. Adults are high susceptibility

Influenza: Influenza virus also called as flu virus whereas; this is a single-stranded RNA virus belongs to the viral family Orthomyxoviridae. The infectious disease caused by influenza virus is called as influenza invertebrates. The most common symptoms of influenza infection include runny nose, high fever, muscle and joint pain, sore throat, coughing, headache, and feeling of tiredness. This virus is spread through air from sneezing and coughing. It is also spread by touching the contaminated objects and then touching the mouth, eyes and nose. Disease starts showing its symptoms two days after exposure to the influenza virus. Then it last for not more than a week. In most human beings, the infection settles itself. But in certain human beings, especially in immunocompromised human beings, adults aged above 65, and, young children

*Corresponding author. Pasteur Louis Robert, E-mail: Robert.P1@hotmail.com.

aged below 5, it last for several weeks and can cause severe complications. They are four types of influenza viruses such as *Influenzavirus A*, *Influenzavirus B*, *Influenzavirus C*, and *Influenzavirus D*. Among the above four types of viruses, only three types infect people. Influenzavirus A is the major virulent human pathogen which causes H1N1, H2N2, etc. The spread of infection can be prevented by, wearing masks, vaccination and frequent hand washing.

Coronavirus: large family of enveloped viruses with helical-shaped nucleocapsids is called as the Coronavirus, to this virus family the name 'corona' was given because on their surface they have crown-like projections on their surface. The respiratory tracts of mammals are infected by these viruses. Coronaviruses causes common illnesses ranging from pneumonia and common cold to the Middle East Respiratory

syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The guts of mammals are affected by this virus. The usual symptoms of coronavirus infection are a cough, runny nose, possibly a headache and sore throat. Human beings of all ages are receptive to this virus. There are different types of coronavirus. In general coronavirus can be spread from animals to humans. When people immune system is weak, this virus spreads from person to person through droplets. Therefore, shaking hands or touching with an infected person or making contact with the objects having the virus, etc. can cause the transmit of the virus. Therefore, in order to avoid the spreading of this virus, it is necessary to take safety precautions such as washing your hands, wearing surgical face masks, avoiding close contact with infected people, using soap for at least 20 seconds, etc