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Editorial

Influenza and its Interaction with Host Cell

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ABSTRACT

Influenza, commonly known as "flu", is an infectious disease caused by an influenza virus. Symptoms can be mild to severe. The most common symptoms include: high fever, runny nose, sore throat, muscle and joint pain, headache, coughing, and feeling tired. These symptoms typically begin two days after exposure to the virus and most last less than a week. The cough, however, may last for more than two weeks. In children, there may be diarrhea and vomiting, but these are not common in adults. Diarrhea and vomiting occur more commonly in gastroenteritis, which is an unrelated disease and sometimes inaccurately referred to as "stomach flu" or the "24-hour flu". This is believed to occur mostly over relatively short distances. It can also be spread by touching surfaces contaminated by the virus and then touching the eyes, nose, or mouth. A person may be infectious to others both before and during the time they are showing symptoms. The infection may be confirmed by testing the throat, sputum. Complications of influenza may include viral pneumonia, secondary bacterial pneumonia, sinus infections, and worsening of previous health problems such as asthma or heart failure.

Keywords: Influenza; Microbes; Virus; RNA; Virology; H1N1

DESCRIPTION

Three of the four types of influenza viruses affect humans: Type A, Type B, and Type C. Type D has not been known to infect humans, but is believed to have the potential to do so [1]. Usually, the virus is spread through the air from coughs or sneezes. This is believed to occur mostly over relatively short distances [2]. It can also be spread by touching surfaces contaminated by the virus and then touching the eyes, nose, or mouth [3]. A person may be infectious to others both before and during the time they are showing symptoms [4]. The infection may be confirmed by testing the throat, sputum, or nose for the virus. A number of rapid tests are available; however, people may still have the infection even if the results are negative. A type of polymerase chain reaction that detects the virus's RNA is more accurate [1-4].

Frequent hand washing reduces the risk of viral spread, as does wearing a surgical mask. Yearly vaccinations against influenza are recommended by the World Health Organization (WHO) for those at high risk, and by the Centers for Disease Control and Prevention (CDC) for those six months of age and older [5]. The vaccine is usually effective against three or four types of influenza. It is usually well tolerated. A vaccine made for one year may not be useful in the following year, since the virus evolves rapidly. Antiviral medications such as the neuraminidase inhibitor oseltamivir, among others, have been used to treat influenza [6]. The benefit of antiviral medications in those who are otherwise healthy do not appear to be greater than their risks. No benefit has been found in those with other health problems. Infection have co-operations are representing by lytic infection duplication: at least one Virionstaint a host cell, which is then changed over into a plant for the combination of new infections. Virionsin accumulate the cell, which ultimately breaks down and dissipates its substance [5,6].

DISCUSSION AND CONCLUSION

Within the host, pathogens can do a variety of things to cause disease and trigger the immune response. Microbes and fungi cause symptoms due to their high rate of reproduction and tissue invasion. This causes an immune response, resulting in common symptoms as phagocytes break down the bacteria within the host. Some bacteria, such as *H. pylori*, can secrete toxins into the surrounding tissues, resulting in cell death or

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inhibition of normal tissue function. Viruses, however, use a completely different mechanism to cause disease. Upon entry into the host, they can do one of two things. Many times, viral pathogens enter the lytic cycle; this is when the virus inserts its DNA or RNA into the host cell, replicates, and eventually causes the cell to lyse, releasing more viruses into the environment.

REFERENCES

1. Genzel Y, Reichl U. Vaccine production: State of the art and future needs in upstream processing. Methods in biotechnology: Animal cell biotechnology-methods and protocols. New Jersey: Humana Press Inc; 2020;15(2):2747-27453
2. Walsh G. Biopharmaceutical benchmarks. Nat Biotechnol. 2006;24(2):769-776.
3. Gerdil C. The annual production cycle for influenza vaccine. Vaccine. 2003;21(5):1776-1779
4. Sandig V, Jordan I. Immortalized avian cell lines for virus production. Germany; 2005;30(6):110-114.
5. Pau MG, Ophorst C, Koldijk MH, Schouten G, Mehtali M, Uytdehaag F. The human cell line PER.C6 provides a new manufacturing system for the production of influenza vaccines. Vaccine. 2001;19(5):2716-2721
6. Lafrenie RM, Yamada KM. Integrin-dependent signal transduction. J Cell Biochem. 1996;61(5):543-553.