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Short Communication

Confusion Between the Seasonal Influenza (Flu) and the Pandemic Covid-19: A Short Communication

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ABSTRACT

Coronavirus disease 2019 (Covid-19) is caused by a novel coronavirus (SARS-CoV-2) infection, while influenza viruses cause the seasonal influenza (flu). Since some of the symptoms are common, it can be difficult to distinguish between them solely on the basis of symptoms. In this review, we discussed about how people frequently confuse the seasonal influenza and the pandemic Covid-19. Although they share several similar characteristics, there are significant differences between them, and more is being discovered every day. Self-diagnosis and treatment are riskier and can result in more severe illnesses, so it is always preferable to see a doctor, get your symptoms evaluated to confirm the diagnosis, and receive the appropriate medication.

1. Introduction

The world has experienced five pandemic respiratory diseases caused by various subtypes of influenza virus in the last century: 1. H1N1 influenza A virus (IAV) (1918) caused *Spanish flu*, killed around 50 million people worldwide, 2. H2N2 IAV (1957) caused *Asian flu*, killed around 4 million people world-wide, 3. H3N2 IAV (1968) caused *Hong Kong flu* killed 1 million people worldwide, 4. H5N1 IAV (2005) caused *Bird flu* which affected birds and humans both, and 5. H1N1 "novel influenza A virus" (2009) caused *Swine flu* which caused 18,000 human deaths over 100 countries. The novel influenza A virus, since then, has been circulating as a seasonal flu virus (CDC, 2018; Rais et al., 2022a). Another two regional pandemics

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that originated from the Coronavirus (CoV) family are: 1. Severe Acute Respiratory Syndrome (SARS) caused by SARS-CoV, killed 774 people from 2001 to 2003 and, 2. Middle East Respiratory Syndrome (MERS) caused by MERS-CoV, killed 858 people from 2012 to 2015 (Rais et al., 2022b; WHO, 2022). In December 2019, cases of the latest coronavirus disease 2019 (Covid-19) which is caused by a novel beta-coronavirus (SARS-CoV-2), were detected first time in Wuhan, China (CDC, 2022; Rais et al., 2023; Rais et al., 2022a; Rais et al., 2022b).

2. Current Status

The Covid-19 pandemic has spread world-wide, affecting more than 200 countries and territories. As of 10 February 2023, the number of global cumulative cases has reached 755,385,709 including 6,833,388 cumulative deaths; the Americas alone has reported 101,211,478 cumulative cases and 1,100,421 cumulative deaths (WHO, 2023a). Seasonal viral illnesses such as fevers, upper respiratory tract infections, vector-borne diseases such as dengue, and water-borne diseases, such as typhoid and gastrointestinal problems have increased as a result of the changing weather and sporadic rains. People are becoming confused due to the similarities of the symptoms of these diseases, as it is often difficult to differentiate between a common cold (flu) and Covid-19 based solely on symptoms (PAHO, 2020).

3. Similarities Between Covid-19 and Influenza

The disease presentation of Covid-19 and influenza viruses is identical i.e., they both involve respiratory problems, which can manifest itself in a variety of ways, ranging from asymptomatic to serious disease and death. Contact, droplets, and fomites are all ways that viruses spread. As a consequence, hand hygiene and safe respiratory etiquette (coughing into the elbow or into a tissue and then discarding the tissue) are effective public health steps that everyone should take to avoid infection (PAHO, 2020; WHO, 2023a).

4. Differences Between Covid-19 and Influenza

Fever, sore throat, body ache, gastrointestinal symptoms, and sometimes loss of smell and shortness of breath are the most common Covid-19 symptoms. The signs of a common cold, on the other hand, are stuffy nose, runny nose, sneezing, and, in rare cases, fever and chest congestion. The transmission speed of the two viruses differs significantly. In comparison to Covid-19 virus, influenza virus has a shorter incubation period (time from exposure to symptom emergence) and a shorter serial interval (time between cumulative cases). The Covid-19 virus has a serial interval of 5-6 days, whereas the influenza virus has a serial interval of 3 days. Influenza virus transmission in the population is heavily influenced by children. Initial evidence suggests that children are much less infected than adults by the Covid-19 virus, and that clinical intrusion rates in the 0-19 age group are minimal (Osman et al., 2021; Petersen, 2021). According to current Covid-19 results, 80% of infections are mild or asymptomatic, 15% are serious infections requiring oxygen, and 5% are critical infections requiring ventilator. These percentages of serious and vital infection will be higher than those seen with influenza. Kids, pregnant women, the elderly, those with ongoing chronic medical conditions, and those who are immunocompromised are the people who are most vulnerable to severe influenza infection. Our basic interpretation of Covid-19 infection risk is that older age and previous health complications raise the risk of serious infection (PAHO, 2020; WHO, 2023a).

5. Treatment Options

A vaccine is available for seasonal flu, and each year it is modified to target the influenza virus strains that are expected to be the most prevalent throughout flu season. The most reliable trusted source way to avoid getting sick with the flu is to get a seasonal flu vaccine. And if you get the flu after getting vaccinated, the symptoms may be milder. Antiviral drugs are also readily available to treat the flu. They can help to reduce symptoms and shorten the period of time of sickness, if given early. On the other hand, some persons who receive the Covid-19 vaccine may experience mild to moderate adverse effects, just like with any other vaccine. This is a typical indication that the body is building defenses, but serious or persistent side effects from the Covid-19 vaccine are also possible, but immensely rare. A total of 13,168,935,724 doses of vaccine have been given worldwide as of January 30, 2023 (WHO, 2023a). After receiving the vaccine, if anyone experiences breathing difficulties, chest pain, confusion, loss of speech, or mobility, they should consult a healthcare provider very away. Vaccines are continuously monitored throughout the duration of their usage to identify and address any uncommon side outcomes.

Furthermore, there are no specific drugs authorized for Covid-19 therapy. These are currently being developed by researchers (WHO, 2023b).

6. Crisis Ahead

The World Health Organization (WHO) declared a Public Health Emergency of International Concern on January 30, 2023. The global response has remained insufficient and disjointed despite several attempts to draw lessons from the pandemic over the previous three years and debates on international agreements on pandemic preparedness. There is a new, deadly phase that needs immediate action in 2023, far from being the end of the epidemic as many had assumed and President Biden had declared in September of last year for the United States of America (USA) (The Lancet, 2023). Since some people prefer self-medication, believing it's a normal viral illness, it can lead to serious complications with late reporting of Covid-19 in some cases. By that time, doctors can have very little time to treat their patients. Although some may be affected by hysteria believing that it is appropriate to isolate themselves if they start to exhibit symptoms of the common flu, such as fever. Quarantine, which is needed to prevent viral spread, may have a detrimental psychological effect causing post-traumatic stress symptoms, depression, and insomnia (CDC, 2018, 2022).

7. Conclusion

During the Covid-19 pandemic, any onset of fever should be suspected and examined for the virus strain, but without panic. Malaria, dengue fever, enteric fever, viral hepatitis, leptospirosis, and other fevers are usually associated with monsoon-related illnesses. Although it is always vital to seek medical attention as soon as possible, it is also necessary to distinguish between Covid-19 and the seasonal influenza to get appropriate treatment.

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