

Secondary Infection Make the Covid Pandemic More Worsen

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ABSTRACT

SARS - CoV - 2 infections was initially founded in 2003 in Guangdong Province of China and was known to be transmitted by palm civets to humans. In 26 countries, there were 8422 cases were recorded with 11 % death rate. It is characterized by pneumonia like symptoms which can progress to variety of cardiovascular problems and hypoxia. Throughout history, epidemics and plagues have been considered one of the greatest threats to the human survival. Humankind has become more susceptible to epidemic diseases as a result of factors such as rapid population growth and the emergence of advanced means of communication and transportation around the world.

KEYWORDS

Super infection, Coronaviruses, Epidemic diseases

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INTRODUCTION

Coronaviruses was a large group of virus cause infection both in animals and humans. According to current classification, coronaviruses are divided into 39 species and 27 subgenera in the family coronaviruses. Seven of them have been linked to human respiratory illnesses. Four of such viruses are capable of developing the symptoms of a typical cold. Those who were infected by animals risk mutating and spreading to humans. SARS - CoV - 2 is a coronavirus that is similar to a gene found in bat coronavirus, showing that bats are the intermediate host. Humanity has grown more vulnerable to epidemic diseases. As a result, diseases that once took months or years to travel from an affected location to other areas of the earth now spread in a very short time to every nook and corner of the world. The World Health Organization proclaimed pandemic illnesses on 11th of March, 2020. The first case of COVID - 19 being recorded within 3 - 4 months. COVID - 19 began as a novel pneumonia in Wuhan, Hubei Province, China, and quickly spread to all of China's provinces, as well as the entire world excluding Antarctica. The first case was reported in Karachi on 26th February 2020 in Pakistan. It's a viral disease. That transmitted from infected person to healthy person. According to COVID - 19 records there have been 4,995,996 reported cases of coronavirus transmission in 216 countries including 327,821 deaths globally.

DESCRIPTION

Risk Factors

One of the COVID - 19 risk factors is secondary bacterial pneumonia. Secondary bacterial infections were found to be highly linked to worse outcomes and death bacterial infections were found to be highly linked to worse outcomes and death in COV - 2 patients in recent studies. During a previous SARS - CoV - 2 pandemic, multidrug resistant bacteria were prevalent due to irrational use of antibiotics. Antibiotic - resistant bacteria are becoming more common, and our ability to eliminate them is decreasing. This makes us more susceptible to bacterial diseases as well as weakens us during viral pandemics. The COVID - 19 epidemics serves as a matter of the concern of the serious public health threats we face especially during the antibiotic resistant of bacteria.

Clinical Manifestation

COVID - 19 has clinical symptoms that are similar to those of other infections that making the laboratory confirmation challenging without a differential diagnosis. Infectious diseases in Pakistan as well as the serious threat of numerous co - infections, which is a huge public health problem. After its first confirmation on February 26, 2020, Pakistan had 319,848 confirmed COVID - 19 cases as of October 13, 2020, with 6,588 deaths. Many infectious diseases, such as dengue fever, malaria, tuberculosis, typhoid, hepatitis, measles, and influenza, are frequent in Pakistan due to poverty, overcrowding, and a lack of healthcare infrastructure. COVID - 19 and endemic communicable diseases in Pakistan had quite comparable clinical and analytical characteristics. Clinical manifestations of COVID - 19 have been related to a number of endemic diseases, making early detection more complex. A series of tests in the lab confirm the presence of underlying infectious diseases. The epidemic of Coronavirus and chronic infectious disease in Pakistan poses a number of public health challenges, and such complicated combinations

not only make diagnosis more difficult, but also throw a double load on the country's already overburdened healthcare system.

Prevalence

SARS - CoV - 2 patients were infected with other co - infections. That was more common among patients who were not in the ICU, at around 29 %. In 24 %, superinfecting was also more common than co - infection, especially among mechanically ventilated patients (41 %). Furthermore, the super - infected patients had a higher incidence of oxygen therapy and comorbidities, as well as a higher chance of death. In coronavirus infected individuals, the occurrence of viral co-infection was 3 %, bacterial co - infection was 7 - 8 %. One of the many reasons of morbidity and death in coronavirus patients that has still to be investigated is the prevalence and severity of co - infections; occur in patients with acute respiratory distress syndrome (ARDS).

Diagnosis and Transmission

The immunological reaction of the host to SARS - CoV - 2 was important in disease development and clinical manifestations. In patients with severe nCoV - 19 can initiate both antiviral immune responses and uncontrolled inflammatory responses are characterized by high pro - inflammatory cytokine production, which leads to monocyte and granulocyte abnormalities, lymphopenia and lymphocyte dysfunction. That was detected in older patients over the age of 60. Immune abnormalities caused by SARS - CoV - 2 could lead to septic shock, microbial infections and multiple organ failure. COVID - 19 patients had lymphopenia and high cytokine levels, which could be used as indicator for disease progression. COVID - 19 has immunological characteristics that can contribute to microbial infection and different organ failure. Throughout the mid - nineteenth century, hazardous viral infections and their multiple connections with animal and human species were particularly well - known. Cross - species transmission has the potential to harm human health and well - being. Pathogenic transmission across the nations has expanded consequently of human activities and fast globalization resulting in a number of pandemics, particularly viral pandemics. Humans began to develop their agricultural civilizations during this time, resulting in a rise in the transfer of viruses with a high occurrence. As a result of anthropogenic activity, pathogenic transmission has grown over the world, resulting in rapid globalization and viral endemic.

CONCLUSION

Early diagnosis, social distancing, prevention, complete lockdown, and effective sanitization have all been shown by the WHO to be effective in overcoming COVID - 19. The worldwide healthcare system has been influenced by this. Moreover, various national and international authorities have issued guidelines on what should and should not be done. Which were made available on national and international forums? Pneumocystis, aspergillosis, and mucormycosis all have different first - line therapies and empirical treatments will be avoided as much as feasible. Preventive interventions such as antifungal chemoprophylaxis and environmental measures should be considered based on the epidemiological required data with the objectives of decreasing the morbidity and mortality. COVID - 19 has been taught humanity a few things. One is the transformation of our relationships with

environment and COVID - 19 is believed to have originated in illegal wildlife trade. The COVID - 19 pandemic follows similar patterns to vector - borne diseases spread by vectors for which we urgently require prevention measures. They suggest that Governments across the globe must work to avoid further damage of natural ecosystems that protect humans from zoonotic agents (among other health concerns), protect biodiversity and its associated causes (e.g. global change) and prohibit the use of animals from illegal sources. Some VBD preventive techniques, such as COVID - 19 or any kind likely to be connected to environmental circumstances might be used to preventing zoonotic diseases.

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