Any Contribution Of The Season Change To The Spread Of COVID-19 Caused By SARS-CoV-2?

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Abstract

Background: Most people raise a similar concern during this tough time of the COVID-19 pandemic caused by SARS-CoV-2 infection regarding when this outbreak will come to end. A recent thorough-general study on the success of China dealing with COVID-19 outbreak has concluded to recommend the need for a multi-sectoral approach to prevent future outbreaks of emerging infectious diseases including for the still-occurring COVID-19 outbreak with the initiative for the highest interest of the health of mankind

Discussion: The prevalence of SARS-CoV as the predecessor of SARS-CoV-2 has been concluded to be more suitable in spring than autumn and winter, with nothing prevalence in summer. No coincidence that SARS-CoV-2 infection has outbreak around the world from January 2020 to the present, April 2020, as ever predicted to reoccur based on its predecessor, SARS-CoV, that have prevalence been high since January, February, March, April, until early May 2003. As opposed to other seasons, summer has low atmospheric pressure as its exemption that provenly causes virus inactivation.

Conclusions: The denotative nature of SARS-CoV-2 seems to reflect its predecessor, SARS-CoV, which begins nearing the end of the year and reaches its optimum hence in spring, thereafter, finally ends in summer. Low atmospheric pressure in the summer impresses that it is the potential cause of ending the outbreak by deactivating SARS-CoV-2, apart from the hot temperature of weather. The knowledge to be gained here is further closely correlated to the fact that coronavirus is able to have genetic recombination that may bring about new genotypes and, consequently, outbreaks later occurring.

INTRODUCTION

Most people raise a similar concern during this tough time of the COVID-19 pandemic caused by SARS-CoV-2 infection regarding when this outbreak will come to end. The awaited theme of a study but yet may still need more time to further investigate. Recently, a thorough-general study by Qian et. al. on the success of China dealing with COVID-19 outbreak has concluded to recommend the need for a multi-sectoral approach to prevent future outbreaks of emerging infectious diseases including for the still-occurring COVID-19 outbreak with the initiative for the highest interest of the health of mankind [1]. Of the scarcity of studies on this theme, the association between the season factors and the spread of outbreak starts raising to be anticipated, which has not been mentioned and emphasized by Qian et. al. on their analysis toward the systematic approach that protecting the planetary health from the infectious diseases causing the outbreak as in COVID-19 pandemic.

DISCUSSION

There is an enigma yet to clearly define for the role of the weather temperature in the occurring of the outbreak [2], such as SARS-CoV-2 causing COVID-19 infection, that still questionable. Whilst history repeats itself to present inspiration; motivation; solution; and prediction, the prevalence of SARS-CoV as the predecessor of SARS-CoV-2 has been concluded to be more suitable in spring than autumn and winter [2], with nothing prevalency in summer.

Something that has been surprisingly indicated from hundred years ago regarding when ending of something outbreak [3] and it is no coincidence that SARS-CoV-2 infection has outbreak around the world from January 2020 to the present, April 2020 [4], as ever predicted to reoccur based on its predecessor, SARS-CoV, that has prevalence been high since January, February, March, April, until early May 2003 [2]. The timing of the onset of SARS-CoV-2 infection in

December 2019 [4] appears to be patterned with the emergence of its predecessor, SARS-CoV, in November 2002, which is associated with the optimal range of environmental temperatures for SARS-CoV between 16 °C to 28 °C from November to April [2].

Nonetheless, in the current case of SARS-CoV-2 infection, many countries that have lower or even higher temperatures cannot avoid experiencing this COVID-19 outbreak [4]. Contrary even further to much-arguable common presumptions that an outbreak will difficult to existence on the hot temperature of the weather, escalating a crucial question, to our notion, that what factor solely summer can make the difference compared to other seasons so no prevalence for SARS-CoV and hence probably as also for SARS-CoV-2, if not due to hot temperature.

Apparently, as opposed to other seasons, summer has low atmospheric pressure as its exemption [5] that provenly causes virus inactivation [6] including, in our view, as probably ever occurred to SARS-CoV and later-predictable be happened to SARS-CoV-2 when entering summer. Supporting a well-established concept that can be said to be similar, in our opinion, that even the best management of patients with SARS-CoV infection or SARS-CoV-2 is to be treated in isolation rooms with negative pressure. The cold atmospheric pressure has even been echoed to be a part of an effective disinfection method and environmentally-friendly for space and water disinfection [6].

CONCLUSIONS

The nature of SARS-CoV-2 indicatively appeared to be mirroring of its predecessor, SARS-CoV, that begun at near to the end of the year and reaching its optimum later in spring, then, eventually ended in summer. The research to be undertaken by the scientific community on this scarce theme may benefit more by focusing on the role of low atmospheric pressure in summer that may suggest becoming the cause of the ending of the outbreak by inactivating SARS-CoV-2, irrespective to the hot temperature of weather.

The knowledge to be gained here is further closely correlated to the fact that coronavirus able to have genetic recombination [7], which may bring about new genotypes and, consequently, outbreaks later occurring. Therefore, dealing with the possibility of re-emergence of SARS-CoV-2 and other new viruses need for more comprehensive preparedness.

LIST OF ABBREVIATIONS

COVID-19: Coronavirus disease 2019

SARS-CoV: Severe acute respiratory syndrome coronavirus

SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

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