



Covid-19 a Potential Threat?

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ABSTRACT

Coronavirus disease 2019, now referred as Covid-19 has emerged as a pandemic and has taken the world to its knees. The novel coronavirus belongs to the family of SARS which mutated to exhibit novel phenotypic characters. Since, the disease is contagious the threats that are associated multiplies many folds and also opened space for misinformation which include myths that needs to be addressed. The scientific community working at various avenues to combat against this novel disease is awaiting enough data to lay confident claims. Among the few ways of handling the disease; heard immunity, convalescent plasma therapy, optimizing immunity, use of hydroxychloroquine and use of dexamethasone are seen as some of the potential ways. Apparently, it has been realized that mutation and emergence of novel diseases with its threats of becoming pandemic is a huge threat to the world today and even in the future.

Keywords: Covid-19, SARS, Coronavirus, Hydroxychloroquine, Dexamethasone

INTRODUCTION

The big thing the world is confronting is from a little substance. A virus from the class of coronavirus has brought all the attention of the globe to itself. The field of microbiology no longer needs any introduction even to a layman. A small mutation in an already known virus makes it novel and therefore shows unidentified phenotypic characteristics [1]. Covid-19 has emerged as a threat to human race for it has no definite treatment or vaccine and most dangerously it is contagious, a combination most lethal [2]. Never in the times of history had the world looked in so much anticipation towards the scientific community. The scientific community does not have enough data to detail certain facts upon which concrete conclusions can be drawn. The hypothesis that is framed meets inconclusive evidences yet becomes widely accepted. Researchers have suggested hugely contrasting reasons for the spread of this pandemic. Few have leaned on the 'global deforestation' as one of the reason while some have gone on to suggest that the 'economic injustice' across the globe stands as the reason for Covid-19 becoming a pandemic [3,4]. A clinical microbiology review

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paper published in American Society for Microbiology, October 2007 had already warned to be ready for the re-emergence of SARS and the prediction has fallen very accurately. The situation in which the world has fallen is a manifestation of what threats these novel diseases and their agents are capable of. It is imperative to claim that we are now living at

the junction of an old world and the new world. With the pandemic of Covid-19 the world will enter into a new world whose exact interpretation is more than just difficult. Quite conclusively, it can be suggested that the world would become more scientific and cautious about its habits.

Habits - A need to review

In the milieu of the pandemic, the life style and habits of people has gained more focus than ever before. The massive increase in the population across the globe has affected biodiversity in the worst possible form. A huge shift in the food habits has adversely affected people's immunity and also widened the sources of attaining infections. The consumption of exotic mammals has always paved way for newer infections. With unprecedented use of drugs and medicines, the sharp drop in the immunity of people has been at our display. Less consciousness about the need of cleanliness and hygiene at individual and community level among the third world countries has fueled medical threats. The cozy approach towards the natural resources has increased the risk of climate change and perhaps contributes for novel disasters. At a point when a novel disease emerges, like in the case of Covid-19 the need to reduce its transmission requires drastic transformation and shift in the habits of the masses.

Reducing transmission

The transmission of the novel coronavirus through the aerosols needs an acknowledgment since Covid-19 is largely a respiratory disorder [5]. The risk of penetration of virus deep into the lungs is associated with the aerosols that are inhaled. Thus, it is highly important to use mask in places that can concentrate huge amount of virus like hospitals, restaurants, airplanes and other crowded places [6]. The restricted movements of people who are immune compromised needs special focus as the risk of attaining infection in them increases multiple folds [7]. Frequent and proper sanitization of hands should be the new normal. Based on the studies of respiratory disorders, the maintenance of physical distancing of at least 6 feet between two individuals is recommended by WHO [8]. Interventions at the policy level are also a pivotal tool in controlling the transmission. Regulations for international travel and bio-screening at the point of entry and exit with proper strategies for contact tracing are very significant.

Un-masking myths

The myths around the pandemic are based on incomplete scientific knowledge and a lot of prejudice. The non-treatment of Covid-19 patients is its treatment is a myth going around. The myth is based on the primary immune response of the body upon the recognition of antigen which is associated with increase in temperature of the body. Since Covid-19 has a symptom of increased body temperature, the persistence of such high fever is in itself a cure to the disease is a popular notion. However, it should be noted that the virus doesn't completely gets cleansed from the body in such cases but remains persistent at a considerable titer and keeps its virulence active [9]. The inability of the virus to survive in regions of higher temperature is also a myth since; temperature is not the only factor responsible for viability of viral particle. Nature of surface, moisture, humidity, presence of living cells etc are also important elements for the viral particle to remain viable [10]. Use of traditional or home remedies against the virus has gained more popularity. However, there have not been any scientific evidences to prove any of such remedies to be true. The most dangerous myth going around is the inability of the asymptomatic patients to spread the disease.

According to WHO 40% of asymptomatic patients are a potential threat for spread of the disease [11].

Recommendations and way ahead

There is a need to have a detailed, documented and a comprehensive study for the patterns of spread of contagious diseases and the reasons for it becoming a pandemic. Strong scientific evidences must be put forth for how and until what level contact tracing must be done. Mutation pre-readiness should acquire most of the efforts of genetic scientists. Mass awareness among people to synchronize their intellectual and behavioral attitudes with scientific temper is the need of the hour. Newer avenues of immunology study must be a part of future prospects. It is important that scientist and health workers take their consciousness towards the development of immunity of individuals to establish a natural fighting army against any foreign antigen. Art of living with such novel disease must be a new skill among the common people that depends of adaptability and changeability. The human trials of vaccines must be quick and need to be devoid of any miscommunications. Mutation has been the food for thought for researchers to deal with novel diseases. Since mutation occurs to attain genetic variation and to better itself against the environment, it will not be a surprise if world faces novel diseases frequently.

CONCLUSION

The disease of Covid-19 has almost affected every country across the globe. The habits and behavior of people has paved way for emergence and spread of novel diseases. In order to lessen its spread, huge and drastic changes in the routine are regarded to be potential asset. A more cautious and scientific approach needs to be adopted to shift from change resistance to change sensitivity and to demean the myths that do rounds. Personal and community hygiene should be set as priority. The mutation that occurred is an unprecedented process and therefore needs acknowledgement from the genetic scientists. Research and documentation on patterns of mutation and reasons of disease becoming a pandemic should be seen as a chief focus. Novel immunological studies must be unleashed in order to fight against any novel disease.

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