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Comprehend the COVID-19 Virus in the Human Body and Its Symptoms

Kalpana Verma[1]

[1]MBBS Student, Kasturba Medical College
Mangalore, India
kalpana.verma.lko[at]gmail.com

Abstract: ***These COVID-19 infection causes respiratory contamination including pneumonia, cold, wheezing and hacking while in creatures it causes looseness of the bowels and upper respiratory maladies. Crown infection transmitted human-to-human or human to creatures through airborne beads. Crown infection enters the human cell through the layer ACE-2 exopeptidase receptor. WHO and ECDC exhorted to evade open spots and close contact with tainted people and pet creatures.***

Keywords: Coronavirus, COVID-19, virus, MERS-CoV, SARS-CoV.

1. Introduction

The primary human instances of COVID-19 were recognized in Wuhan, China, in December 2019. At this stage, it is unimaginable to expect to decide absolutely how people in China were at first tainted with SARS-CoV-2. [1] Furthermore, a few advancements may be known or completely seen uniquely largely. The World Health Organization pronounced the COVID-19 flare-up a Public Health Emergency of International Concern on 30 January 2020, and a pandemic on 11 March 2020.

2. Microbiology of COVID-19 virus

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [2] is the member of the coronavirus group. Coronavirus 2019 (COVID-19) is the main cause of the respiratory sickness obligated for the COVID-19 pandemic. Conversationally known as basically the coronavirus, it was as of late implied by its impermanent name, 2019 novel coronavirus (2019-nCoV), and has moreover been called human coronavirus 2019 (HCoV-19 or hCoV-19). [3] The World Health Organization articulated the scene of a Public Health Emergency of International Concern on 30 January 2020 and a pandemic on 11 March 2020. [4]

SARS-CoV-2 is a Baltimore class IV positive-sense single-deserted RNA contamination that is irresistible in humans. As depicted by the U.S. National Institutes of Health, it is the substitution to SARS-CoV-1 [5], the strain that caused the 2002–2004 SARS erupts.

Deliberately, SARS-CoV-2 is a strain of genuine extreme respiratory condition related coronavirus (SARSr-CoV). It is acknowledged to have zoonotic beginnings and has close inherited likeness to bat coronaviruses, proposing it ascended out of a bat-borne disease. There is no evidence yet to interface a widely appealing animal store, for instance, a pangolin, to initially involve individuals. The contamination shows negligible innate arranged assortment, exhibiting that the flood event familiarizing SARS-CoV-2 with individuals is likely going to have occurred in late 2019. On 3 July 2020, specialists declared finding that a huge innate danger factor for human ailment with SARS-CoV-2 was procured from old Neanderthals 60,000 years earlier.

3. Transmission mode of COVID-19 virus

COVID-19 is another malady, and a significant number of the subtleties of its spread are still under investigation. [6] It spreads effectively between individuals—simpler than flu but not as effectively as measles. People are most irresistible when they show manifestations (even gentle or vague side effects), yet might be irresistible for as long as two days before indications show up (pre-suggestive transmission). [7] They stay irresistible for an expected seven to twelve days in moderate cases and a normal of about fourteen days in extreme cases. People can likewise transmit the infection without demonstrating any side effect (asymptomatic transmission), yet it is indistinct how frequently this happens. A June 2020 audit found that 40–45% of contaminated individuals are asymptomatic.

COVID-19 spreads principally when individuals are in close contact and one individual breathes in little beads delivered by a tainted individual (suggestive or not), sniffling, talking, or singing. [7]

4. Characteristics of COVID-19 virus

Every SARS-CoV-2 virion is 50–200 nanometers in size. Like different corona viruses, SARS-CoV-2 has four basic proteins as in figure 1, known as the S (spike), E (envelope), M (film), and N (nucleocapsid) proteins; the N protein holds the RNA genome, and the S, E, and M proteins together make the viral envelope.

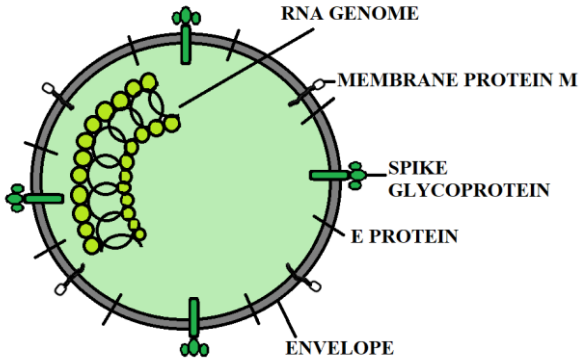

Figure 1: Structure of COVID-19 virus

5. Prevention of COVID-19 virus

Preventive measures to lessen the odds of disease incorporate remaining at home and self-quarantine. Other steps of prevention are wearing a veil out in the open, maintaining a strategic distance from swarmed places, keeping good ways from others, washing hands with cleanser and water regularly and for at any rate 20 seconds, rehearsing great respiratory cleanliness, and abstaining from contacting the eyes, nose, or mouth with unwashed hands. [8]

The WHO suggests 1 meter (3 ft) of social distance; the US Centers for Disease Control and Prevention (CDC) suggests 2 meters (6 ft) for prevention of COVID-19 virus. [7] The use of a personal protective suite [PPE] best suited for prevention as it completely isolates the human body from viruses.

6. Conclusion

This paper analyzed the COVID-19 virus with focus on microbiology, its symptoms and preventive methodology. The study had comprehended the COVID-19 virus. In the future, COVID-19 virus possible cure could be discussed along vaccination programs.

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Author Profile

Kalpana Verma is MBBS student at Kasturba Medical College, Mangalore, India. She has good experience in medical science field as a student of MBBS course during her practical case study. Her research areas are medical science, community medicine and surgery.