

From the Desk of Editor

The dateline of COVID-19 pandemic is so vivid starting from the appearance of first case in China in December 2019, that the subsequent events took over various countries of the world in its stride and every living human being was stung and to contain the disease toed the line of their own governments to remain indoors. Larger use of disinfectant for sanitisation of hand and the surrounding areas, and the use of “bleach” for sanitation of the local area became an instant buzz word.



The origin of the SARS-CoV-2 itself is surrounded in controversies but is aptly clear that this virus originated from bat and had another host in pangolin where it acquires its protein band enabling it to get attached to a human cell. SARS-CoV-2 virus is a zoonotic β -coronavirus and enters the target host cells by binding its S (spike) protein envelope to the human angiotensin enzyme-2. This S human protein band has to get primed by another host serine protease TMPRSS2. 80% of all ACE-2 expressing cells are present in type -2 alveolar cells. Rest 20% ACE-2 cells are resident in nasal mucosa, upper respiratory tract, endothelium, heart, kidney and intestine cells. Elderly population above 60-65 years obese, diabetic, hypertensive and receiving NSAID are more prone of developing severe COVID-19 disease. CD147 also is a contemplated in mediating host cell invasion by SARS-CoV-2. Virus enters the cells after binding to its receptors and the viral RNA gets released intracellularly. Virus not only mutates rather also prints out its innumerable copies and gets further ejected out from the cell.

Within the cells the viruses are sensed by innate immune mechanism through three major recognition receptors i.e. Toll Like Receptors (TLR 3, 7 & 8), RIG-I Like Receptor (RLRs) and Nod Like Receptors (NLRs). Recognition ability of single stranded viral RNA is through TLRs 7 and 8 only. Further downstream signalling effectors are affected to promote the transcription of proinflammatory cytokines (TNF α , IL-1 β , and IL-6.) JAK 1/ TYK 2 and STAT 1 and 2 pathways are also finally activated. Opening up new vistas of management of the disease by certain drugs including interleukin, some biologics, JAK inhibitors (small molecules) and various RCTs are awaited to finally conclude over the beneficial effects of much touted hydroxychloroquine pronounced, the “GAME CHANGER”.

The silver lining is its resultant 3% terminal events, whereas majority of the cases are mild, moderate and even severe cases are recovering unfortunately there are prognostic features of recovery still apparent. Despite, multiple interventions, no effective treatment has yet been established in treating COVID-19. Luckily, the pathophysiology is becoming clearer and it will show the way.

Presenting this first volume it provides me an opportunity to almost individually “TALK TO EACH SUBSCRIBER OF THIS INTERNATIONAL JOURNAL” and wish to get the feedback in reference to the articles published in this special COVID inaugural issue. The journal will keep you abreast with all the newer developments in therapeutics that are coming to nearly acquiring its deserved place in successful management protocol.

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