



Status of Newer Emerging Therapeutic Strategies in the Pipeline for Mitigation of the SARS-CoV2 Infection: Some Challenges and Introspects

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Preamble

The global pandemic of the novel corona virus (COVID-19/ SARS CoV-2 strain) is spreading rapidly, mutating and has so far affected numerous lives since its outburst in December, 2019 most likely from the Wuhan province in the People's Republic of China and thereafter transmitted to several countries of the world with an estimated disease burden of casualties rising to more than ten thousand worldwide as of date and leaving more than 300,000 individuals affected worldwide. In our country alone, COVID-19 positive cases have spiralled upwards and crossed 500 including 10 casualties. In this backdrop, the present endeavour attempts to collate and present a nutshell of the state of the preparedness in the anvil for its management. The WHO endorsed the "SOLIDARITY trial" which experts believe to be a one-of-a-kind in pragmatic approach trial plus from supportive treatment. The current pharmacological strategies in the pipelines being evaluated are as follows [1-3]:

1. Remdesivir (nucleotide analogues).
2. Ritonavir plus Lopinavir (protease inhibitors).
3. Quinoline derivatives like chloroquine and Hydroxychloroquine (However, potential side effects include - QT elongation, and not appropriate in patients less than 15 years of age).
4. Antiviral drug plus interferon (INF) (Costliest of the lot).
5. Post exposure prophylaxis (WHO, ICMR) using chloroquine and hydroxychloroquine.
6. mRNA 1273 vaccine undergoing clinical trials.

Some of the possible non-pharmacological measures include (but is not limited to):

1. Self-isolation and Social distancing to stop mass-scale community transmission.
2. Early detection and contact tracing of susceptible individuals.

3. Testing more number of samples in our nation.
4. Lockdown of major affected districts of the country.
5. Accelerated vaccine and antiviral drug discovery.

Conclusion

Thus in summary SARS CoA2 strain of the family of Coronaviruses has positioned itself as a trigger of a major global public health crisis having economic ramifications owing to its evolving nature between S and L forms and its effectiveness which is reported to be greater than the recent episodes of Severe acute respiratory syndrome (SARS), Middle-eastern respiratory syndrome (MERS) or the much more fatal Ebola virus outbreaks in recent memory.

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