Remdesivir, Favipiravir and Dexamethasone Linked to SARS CoV-2 B.1.617 Variants: Could SARS CoV-2 Mass Vaccination Programs Evolve More Virulent Ones?

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To The Editor,

Some SARS CoV-2 variants were suggested to cause a higher number of infections, worse clinical outcomes, escape of the immune system and vaccines as well as diagnostic hardships[1] and the WHO has suggested a preliminary evidence of their more rapid spread, more severe disease or evasion of previously acquired immunity [https://www.nature.com/articles/d41586-021-01274-7]. Thus, we wish to explore the potential causes that might trigger the evolution of these virulent variants using India as an example.

We have witnessed the emergence of the SARS CoV-2 B.1.617 variants first identified in India in October 2020 and later identified in 40 other countries and the Indian surge of cases and mortalities was considered of international grave concern [https://www.nature.com/articles/d41586-021-01274-7] especially as these variants are expected to be the dominant ones over time [https://www.reuters.com/world/uk/indian-variant-will-become-dominant-uk-top-medic-says-2021-05-14/].

Some authors have claimed that SARS CoV-2 B.1.617 variants have mainly evolved first in India because of lack of control on crowd-gatherings [https://www.nature.com/articles/d41586-021-01059-y] and we suggest this is a least likely possibility as many developing countries have minimal control on crowd-gatherings and their report of SARS CoV-2 variants and more importantly their surge of COVID-19 infections and/or mortalities are much better than that of India though some share similar genetic profile.

We suggest that the abundant Indian use of the ineffective and mutagenic antiviral drugs; remdesivir and favipriavir[2] as well as the immunosuppressive dexamethasone[3] are the main causes of evolution of these SARS CoV-2 B.1.617 variants responsible this Indian unprecedented surge of COVID-19 induced mortality which unfortunately might be repeated with more potent variants especially after mass vaccination with SARS CoV-2 vaccines[4] in other countries that follow the same path unless, as we suggest, a prompt decision to discontinue remdesivir and favipiravir use in COVID-19 management is being made together with a re-evaluation of the long-term efficacy/hazards of the current SARS CoV-2 mass vaccination programs[5].

Moreover, the need of a proper COVID-19 management protocol has been shown of paramount importance to reduce the probability of resistant strain establishment[6] and we suggest that our immunomodulatory safe, simple, inexpensive and successful one that has been unfortunately ignored, on purpose, for more than one year might prove the best suitable alternative to save lives and to minimized the evolutionary risk to develop more virulent and lethal variants[7] [8].

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