TITLE PAGE

Title:

Remdesivir could promote the occurrence of SARS-CoV-2 variants

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TEXT

We read with interest Rubin et al.'s article that endorses Remdesivir approval by FDA.[1] It shortly follows a report on the occurrence of SARS-CoV-2 mutants in an immunosuppressed patient who received four Remdesivir courses[2], which from our viewpoint should have warranted two comments. The first is that this case is a quasi-experimental demonstration that Remdesivir has no effect on viral carriage in immunosuppressed patients. The second comment questions the direct role of Remdesivir in the rapidity of occurrence of mutations in viral spike protein that binds the host cellular receptor and is a major target of host immune response. There is at least another observation[3] that supports the hypothesis that Remdesivir associated with convalescent plasma or monoclonal antibodies could promote the emergence of viral variants with a mutated spike. Practically, it appears important to have a message around Remdesivir, which efficacy was not recognized by the WHO (https://www.who.int/news-room/feature-stories/detail/who-recommends-against-the-use-of-remdesivir-in-covid-19-patients) and which potentially presents the risk of determining SARS-CoV-2 mutations that could trigger new epidemics, as it could have been the case with the VOC-202012/01 variant in England.[4]

References

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Conflicts of interest

CD declares a link of interest with the Sanofi and Merck pharmaceutical companies. PC and DR declare that they have no competing interests. Funding sources had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; and preparation, review, or approval of the manuscript.