Open Forum Infectious Diseases

RESPONSE TO LETTER TO THE EDITOR

Response to Letter to the Editor—Viral Ribonucleic Acid Shedding and Transmission Potential of Asymptomatic and Paucisymptomatic Coronavirus Disease 2019 Patients

Dear Editor,

In this letter, Ajay Gupta and colleagues have disagreed with the findings of our study where we concluded that the duration of isolation in asymptomatic and paucisymptomatic cases of coronavirus disease 2019 (COVID-19) could be reduced to 6 days after a positive reverse transcription polymerase chain reaction (RT-PCR) test.

In our study, we observed a constant decrease in viral shedding over time with no detectable viral RNA in exhaled breath 6 days after a positive RT-PCR test. Several other studies have also demonstrated faster viral clearance and a shorter period of infectiousness in asymptomatic COVID-19 patients [1, 2]. Similar viral kinetics have been observed with influenza and Middle East respiratory syndrome coronavirus (MERS-CoV) [3]. Studies by Chen et al. [4] and Hu et al. [5] also showed significantly shorter duration of viral shedding, with a median duration of 6 days among asymptomatic cases. According to the Centers for Disease Control and Prevention (CDC) guidelines issued on December 2, 2020, if diagnostic testing resources are sufficiently available, then quarantine can end after day 7 if a diagnostic specimen tests negative and if no symptoms were reported during daily monitoring [6]. These facts strengthen the findings of our study where reducing the duration of isolation for asymptomatic and paucisymptomatic COVID-19 cases to 6 days after a positive RT-PCR is justified.

The purpose of isolation is to reduce the risk of transmission of infection from active cases to healthy contacts. It also ensures that infected persons who develop symptomatic disease during isolation can be rapidly brought to a health care facility and evaluated. However, prolonged periods of isolation can impose personal burdens that may affect physical and mental health as well as cause economic hardship that may reduce compliance. It can also overburden public health systems and communities, particularly during the current phase when the number of new infections and contacts needing to isolate are also rising.

Our study was *not* intended to determine the incidence of COVID-19 in contacts of asymptomatic patients. Rather, it aimed to study the pattern, duration, and trends of viral RNA shedding in asymptomatic and paucisymptomatic secondary cases of COVID-19 for better understanding of the transmission dynamics. Our results cannot be generalized to the entire population as the study was based on a small cohort. Moreover, quantification of viral load and infectivity would have been best determined by viral culture, rather than cycle threshold values, and these have been mentioned as limitations of our study.

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Potential conflicts of interest. Both authors: no reported conflicts of interest. Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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