

Letter to the Editor

DOI: <https://doi.org/10.18502/fem.v5i4.6688>**Reinfection in COVID-19; Gap Between Theory and Reality**Shaghayegh Rahmani^{1*}, Shahram Keikha²

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To the Editor-in-Chief:

About 18 months has passed since the first case of coronavirus disease of 2019 (COVID-19) was reported., that caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). There has been some incoherence about various aspects of the disease (1, 2). A concern has been raised regarding reinfection of patients who have recovered from COVID-19. There are rare reports of cases with suspected COVID-19 “recurrence” or “reactivation” (3, 4). This could be horrible news for all countries over the world, because the novel virus has a great impact on economy, society, and health. “Retesting Positive for SARS-CoV-2” is very attractive and frightening for scientists and has triggered discussions. Retesting positive might be explained in two categories; first, test quality and second, discharge criteria. On the other hand, it has been suggested that there might be a lag in virus clearance in some cases, for example older ones (3). But the evidence is not sufficient.

Here we report a case of virologically-confirmed COVID-19 patient having experienced a clinically- and virologically-confirmed reinfection of COVID-19.

One of our nurses who was a 50-year-old man with history of ischemic heart disease and coronary artery bypass graft was referred to the emergency department with dyspnea and myalgia. He was hospitalized for three days because of his risk factors and positive Reverse transcription polymerase chain reaction (RT-PCR) test for COVID-19. He was discharged and advised to isolate and quarantine. After 6 months, he came back with uncontrolled fever and dyspnea. His O₂ saturation was below 80%. He was admitted and hospitalized for 10 days. His RT-PCR test result was positive again for COVID-19. Figure 1 shows his first and second x-ray.

It is important to distinguish reinfection and reactivation of COVID-19, because, in Iran, we permit patients to leave isolation or discharge them from hospital based on clinical recovery

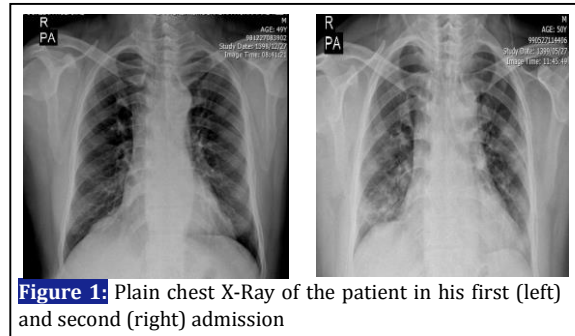


Figure 1: Plain chest X-Ray of the patient in his first (left) and second (right) admission

without retesting in many cases. While, for example in the Korean approach it has been suggested to label patients as negative after two negative test results in 24 hours (5). Re-positive RT-PCR test result for SARS-CoV-2 is an emerging global pandemic control challenge. Korea Centers for Disease Control and Prevention (KCDC) reported a high percentage of re-positive cases among asymptomatic patients, most reported cases had mild to moderate symptoms and most of them were asymptomatic (6).

All in all, it is a fact that patients with COVID-19 history might experience re-activation or reinfection. We believe that the criteria for calling patients non-infectious should be reviewed.

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AUTHOR CONTRIBUTION

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CONFLICT OF INTEREST

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