

The Role of Complete Bed Rest Position in COVID-19 Patient Outcome; Bed Rest and COVID-19

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Dear Editor

SARS-CoV-2 is a novel strain of the coronaviruses posing great challenges to the human immune system. Hence, human innate immunity determines how our body responds to the early infection (1-3). According to the studies, coronavirus can cause a range of symptoms by affecting different organs in the body (4, 5). Currently, our hospital is one of the referral centers of COVID-19 in Iran. We would like to share our findings regarding complete bed rest in the management of moderate COVID-19 cases.

From the date of the first confirmed case up to the 10th September 2020, a total of more than 5000 cases were referred to our hospital, most of whom suffered from moderate to severe forms of infection needing supportive and intensive care management. The treatment also is based on national recommendations for diagnosis and treatment of COVID-19. Nevertheless, our observation found that disconnecting patients from the supplementary oxygen for personal needs, such as the need to use the toilet, worsens the health of certain patients, leading to patient expiring. In these patients, our examination showed that hypoxemia following physical activity couldn't easily back to the stable condition in terms of exacerbated hypoxemia and finally patients need invasive ventilation. At this time, we know very little about the effects of physical activity on SARS-CoV-2 infection or COVID-19 patient outcome. However, we have noticed a significant worsening in the shortness of breath in the patients with the marked physical activities (1, 6), which may put the patient body under more stressful situation.

Consequently, we hypothesize that COVID-19 infected patients with oxygen saturation less than 90% (SpO₂<

90%) are better to be on complete bed rest to prevent the patient's condition from getting worse which is comparable to myocardial infarction (MI) patients. Since these cases are prescribed prophylactic anti-coagulants, the clinician would not be worry about deep venous thrombosis (DVT) and embolism. Subsequently, the need for intensive care and invasive ventilation decreases in the current cases.

In summary, the condition of COVID-19-infected patients (moderate form) might be worsened by physical activity, even for small personal tasks. Clinicians should consider complete bed rest to overcome this obstacle appropriately. Furthermore, physical activity guidelines for patients should be prepared by specialist during infection period and after relief of diseases.

Conflict of Interest

There are no conflicts of interest.

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