

Significance of physiotherapy in “SARS-CoV-2/COVID-19: An Epidemic”

Sir,

COVID-19 is a newly recognized disease which spread rapidly from Wuhan to other places of China as well as across the world.^[1] The WHO declared COVID-19 outbreak as the sixth Public Health Emergency of International Concern on January 30, 2020. Primarily, it was labeled as “Pneumonia of unknown etiology.”^[2] Later, the human coronavirus (CoV) was found as the causative agent, named as severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) by the experts of the International Committee on Taxonomy of Viruses).^[3] Later, on February 11, 2020, the WHO announced that the disease caused by this new CoV was a COVID-19.^[2]

CoVs belong to the genus Coronavirus in the *Coronaviridae* (order *Nidovirales*) and divided into four genera, namely, alpha, beta, delta, and gamma CoV. Beta-CoV genus is further divided into four subgenus/lineages, i.e., A, B, C, and D. SARS-CoV-2 belongs to beta-CoV-B lineage and causes a serious issue to public health.^[4] The first four cases of SARS-CoV-2/COVID-19 had a direct exposure to Huanan Seafood wholesale market of Wuhan.^[5] The subsequent cases were not having such exposure, so human-to-human transmission has been confirmed, and transmission is reported to occur by direct contact with infected secretion or large aerosol droplets.

The most common symptom of SARS-CoV-2/COVID-19 is fever followed by cough, dyspnea, myalgia, sputum production, headache, and diarrhea. Sore throat, nausea, rhinorrhea, and vomiting may also be noted. Ground-glass opacity, bilateral lung involvement, is the most common radiological finding from computed tomography scan. It may lead to complications such as acute respiratory distress syndrome, acute cardiac injury, acute kidney injury, acute liver dysfunction, and pneumothorax.^[1]

Treatment and Prevention

No specific treatment is recommended for SARS-CoV-2/COVID-19. The main focus of treatment is infection control measures, symptomatic relief, oxygen therapy, and organ support.

Physiotherapy

Physiotherapy may play a vital role in the respiratory management and rehabilitation of patients with SARS-CoV-2/COVID-19. A cardiorespiratory therapist contributes a significant role in the management of patients with confirmed/suspected SARS-CoV-2/COVID-19. Dyspnea is the common feature of this condition; inspiratory muscle training and breathing exercises may be beneficial to improve dyspnea. Physiotherapy may be indicated in patients with copious secretions that are unable to clear independently and adequately. High-risk patients who have existing comorbidities e.g. Chronic respiratory or neurological conditions should be indicated physiotherapy interventions. The practicing physiotherapist may use postural drainage and various manual/mechanical airway clearance techniques to clear the airways. Physiotherapists may assist in the positioning of patients; prone position has favorable outcomes in patients with severe respiratory distress associated with SARS-CoV-2/COVID-19. Positioning is also useful to prevent secondary complications.^[6] SARS-CoV-2/COVID-19 patients in the intensive care unit (ICU) are at a high risk of ICU-acquired weakness due to mechanical ventilator support, sedation, neuromuscular blockers, or prolonged bedridden, which may lead to poor health-related quality of life.^[7] Therefore, it is important to anticipate early rehabilitation to prevent or limit the ICU-acquired weakness. Physiotherapists provide exercises, early mobilization, and rehabilitation strategy in patients with SARS-CoV-2/COVID-19 to make them functionally independent at the time of discharge from hospital.^[8]

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Conflicts of interest

There are no conflicts of interest.

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