



EDITORIAL

Chronic phase of COVID-19: challenges for physical therapists in the face of musculoskeletal disorders

Fase crônica da COVID-19: desafios do fisioterapeuta diante das disfunções musculoesqueléticas

The novel coronavirus (SARS-CoV-2) belongs to a group responsible for causing acute respiratory syndromes that can vary from mild symptoms to severe conditions, resulting in hospitalization, need for mechanical ventilation, and significant mortality rate [1]. Despite respiratory impairment, other systemic symptoms may be manifested, such as neurological, gastrointestinal and musculoskeletal disorders [2].

Although little is known about the long-term physical consequences of COVID-19, patients who need mechanical ventilation in the most acute phase of disease can experience serious side effects, developing the so-called post-intensive care syndrome, which affects survivors of all ages. This syndrome is primarily characterized by prolonged disability, with muscle dysfunction, fatigue, pain and dyspnea as secondary effects [3]. A second very common consequence in critically ill patients is ICU-acquired weakness, related to immobility, suboptimal glycemic control, and iatrogenic use of steroids and neuromuscular blocking agents. Other possible subsequent changes are critical illness polyneuropathy and myopathy. Less common physical sequelae of prolonged immobility may also occur, including cardiorespiratory deconditioning, postural instability, venous thromboembolism, muscle shortening, contractures (myogenic, neurogenic, arthrogenic) and pressure injuries [4].

In order to limit the severity of sequelae resulting from the hospitalization, it is essential that the physical therapist still works during the hospital phase, at the earliest stage of the disease, which will promote faster functional recovery and accelerate the discharge process. In some cases, in which the infection generates a productive cough, the physiotherapist conducts bronchial hygiene that allow the elimination of secretions and help to reduce respiratory distress. In other situations in which there is dry and non-productive cough, which is much more frequent with COVID-19, respiratory physical therapy may not be necessary [5]. However, as the role of physical therapists in the acute phase of disease is not restricted to the respiratory system, this professional remains indispensable even in this phase, conducting exercises and mobilizations that significantly minimize musculoskeletal deficits resulting from prolonged immobilization.

In non-severe patients, coronavirus disease can also have long-lasting consequences. As an effective treatment against the virus has not yet been discovered, in addition to hygiene care, social isolation is still the most recommended option by the World Health Organization to contain the rapid spread of the virus and reduce the burden on healthcare systems. On the other hand, this measure may further accentuate another pandemic with which the world has been living for many years: physical inactivity and sedentary behavior [6].

Even though it is not associated with COVID-19, social isolation is a contributing factor to the appearance of musculoskeletal symptoms, such as myofascial pain and arthralgias, especially those linked to autoimmune diseases such as rheumatoid arthritis, spondylitis and systemic lupus erythematosus. Social restriction may also increase the symptoms of patients with fibromyalgia, as it intensifies anxiety and stress [7 - 9]. In this context, a physical therapist who works with musculoskeletal disorders is faced with two complications: patients who already had physical limitations having to deal with lower amounts of exercise and less physical therapy resources [10], and the unpredictable response of recovered patients from COVID-19 in the medium to long term.

In order to minimize such impacts, the professional councils of physical therapy in Brazil have released the services of teleconsultation, teleconsulting and telemonitoring as applicable and reproducible tools to allow supervision and care for patients who need clinical intervention [11]. Physical activity reduces stress, improves self-esteem, cardiorespiratory capacity, muscle strength and coordination, prevents frailty, sarcopenia and dinapenia, in addition to minimizing the risk of falls and cognitive decline in the elderly [12]. Monitoring of exercises, postural and functional guidelines, as well as alerting patients with chronic diseases about respecting the principles of energy conservation can be fundamental resources to avoid the emergence of a critical state in these patients, as well as the appearance of symptoms not previously shown [13]. In this sense, rehabilitation professionals have a fundamental role in the isolation period, helping patients to optimize functional independence and improving quality of life, in addition to facilitating a subsequent community reintegration [4].

Studies carried out with patients with SARS (severe acute respiratory syndrome) by the oldest form of coronavirus showed reduced cardiorespiratory capacity, musculoskeletal limitation and reduced quality of life even after the end of the disease. This shows the need for recovery of these patients regarding their functional capacity [14]. The individuals continued to show high levels of stress, depression and anxiety even one year after the end of the disease. Other viral diseases that cause SARS are described in the literature as generating long-term pulmonary disability and psychological impairment even two years after discharge. Scholars warn that "the long-term effects of infectious disease should not be ignored" [15].

For improvement in symptoms, monitoring by the physical therapist is important, as well as an intensive physical rehabilitation program proposed for these patients, with variable periods from 6 months to 2 years. Analyzing the reality of patients with COVID-19 and SARS, it is clear that they may have a need for therapeutic support also in chronic phases or after the disease is cured [12].

Thus, it is concluded that a new sphere of clinical monitoring of these patients is awoken for physical therapist professionals. The need to promote the return to functionality of patients cured by COVID-19, as well as the physical recovery of the population in social isolation, will be growing demands, which will require physical therapists working outside the hospital to seek improvement and recovery of patients who will appear in healthcare services after the first cycles of pandemic caused by SARS-Cov-2.

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