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REHABILITATION AND OUTCOME IN COVID-INDUCED CENTRAL NERVOUS SYSTEM INJURIES

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Abstract

SARS-COV 2 infection is a multisystem disease, affecting the central nervous system. Common unspecific manifestations are headache, dizziness and altered mental status. The most common severe neurologic complications were COVID-19–associated encephalopathy, acute ischaemic stroke and encephalitis, triggered by immune-mediated and pro-thrombotic mechanisms. Neurologic manifestations are directly associated with the disease severity and presence of comorbidities (hypertension, diabetes mellitus, obesity, dyslipidemia, heart disease, smoking). No specific treatment is available for COVID-19-induced neurologic injuries, which cause lifelong disability, with associated long-term care needs.

Patients with severe COVID infection have specific rehabilitation needs, usually recovering with multiple sequelae: respiratory, cardiovascular, musculo-skeletal, psychiatric, associated with deconditioning; all dysfunctions should be addressed by specific interventions. Managing patients with a highly contagious infection is a challenge for the rehabilitation team. Moreover, patients recovering from severe COVID-19 forms could be potentially unstable and had a low exercise tolerance.

Patients with SARS-COV 2 infection requires multidisciplinary rehabilitation, which needs to be initiated in the post-acute phase. Neurologic, cognitive and functional assessments should be considered in all patients before initiating rehabilitation program.

The short-term outcome was generally favourable in COVID-associated encephalitis without any specific treatment, but further studies assessing the prognosis in SARS-COV 2-related cerebrovascular events and the role of rehabilitation treatment in the recovery process are needed.