

A Novel Use of Concussion Protocols in the Management of the Cognitive Effects in Long Haul COVID

RODIEL KIRBY BALOY¹, HAROLD LUEDERS², ANGEL RAMOS², & OLIVIA TARCA³

¹The College of St. Scholastica; Duluth, NM

²The University of St. Augustine; Miami, FL

³Mercy College; Dobbs Ferry, NY

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Advisor / Mentor: Baloy, Rodiel Kirby (rbaloy@css.edu)

ABSTRACT

Some individuals diagnosed with Long Haul COVID (ICOID) have concurrently reported cognitive issues such as confusion, forgetfulness, decreased attention time, and difficulty focusing. This series of symptoms is termed brain fog. **PURPOSE:** Patients with reports of brain fog may benefit from the utilization of protocols associated with concussion rehabilitation to reduce the effects of confusion, frustration, and difficulty focusing on exercise instructions. This study looked at the novel application of the concussion rehabilitation protocol to mitigate the cognitive issues linked to brain fog through a course of physical therapy for ICOVID recovery. **METHODS:** This case report tracked a 57-year-old female who was being seen for cardiorespiratory and strengthening rehabilitation after a diagnosis of ICOVID. The patient underwent a pre- and post-Mini-Mental State Exam (MMSE) as well as a treatment satisfaction survey at the end of the study. Oxygen saturation was measured before, during, and after each date of visit. During the initial 10-week course of physical therapy, she expressed issues with confusion and occasional difficulty understanding tasks needed in physical therapy. A neurologist diagnosed her with brain fog and suggested that concussion protocols that help individuals with similar cognitive symptoms might facilitate her rehabilitation process. The plan of care was overhauled to incorporate salient features of the concussion rehab protocol and the patient continued with the revised care for another 6 weeks, resulting in a total care episode of 16 weeks. **RESULTS:** The patient completed 16 weeks of therapy with improvement in baseline to exercise O₂ saturation with no noted decline during the strengthening and cardiovascular phase. The patient reported high satisfaction in the ability of the revised treatment plan from week 10 onwards in terms of helping her symptoms and her condition. The patient also reported no associated side effects with the concussion rehabilitation protocol. The patient also stated that there was no difficulty, no inconvenience, and no dissatisfaction associated with the use of the revised plan of care. She stated that the overall treatment plan challenged her, reporting fatigue and tiredness towards both the physical and mental aspects of the therapy. There was no noted cognitive impairment using the MMSE before and after the course of therapy. **CONCLUSION:** The utilization of the Concussion Rehabilitation Protocol is a no-cost, simple-to-integrate addition to ICOVID physical therapy recovery that may help individuals concurrently deal with brain fog. Individuals diagnosed with brain fog will benefit from concussion protocol hallmarks such as the provision of extended rest periods when necessary, compensatory techniques when confused, facilitating exercise utilizing one to two-step instructions, monitoring of mood and symptoms, and education towards an optimistic full recovery from symptoms.