

during the squeezes, from which the muscle fatigue index was computed based on both the mean and median frequencies of each 10-second maximum prompted muscle contraction. Using two-sided Spearman correlation coefficients, we examined the associations between the muscle fatigue indices and self-reported fatigue measured by the Chalder Fatigue Scale (CFQ).

Results: 108 participants were included, 77 female and 31 male, with a mean age of 46 (range 25-78) years, 22% of whom were hospitalised in the acute phase of SARS-CoV-2 infection. Strong intercorrelations were found between the muscle fatigue indices derived from the mean and median frequencies of thigh muscle contractions. However, no significant correlations were detected between the muscle fatigue indices and CFQ scores.

Conclusion: Self-reported fatigue as measured by the CFQ was not associated with an EMG-derived muscle fatigue index in this long-COVID cohort.

Abstract citation ID: afac218.183

212 **FATIGUE EXPERIENCED BY ADULTS WITH LONG-COVID WAS NOT ASSOCIATED WITH AN EMG-DERIVED MUSCLE FATIGUE INDEX**

F. Xue¹, E. Duggan^{1,2}, G. Jennings¹, A. Monaghan¹, R. Romero-Ortuno^{1,2}

¹ Discipline of Medical Gerontology, School of Medicine, Trinity College Dublin, Dublin, Ireland

² Falls and Syncope Unit, Mercer's Institute for Successful Ageing, St. James's Hospital, Dublin, Ireland

Background: One of the most prominent challenges of the COVID-19 pandemic is the emergence of the post-COVID-19 syndrome or 'long-COVID' following the acute phase of the viral infection. With a plethora of debilitating symptoms across many physiological systems, the pathophysiology of long-COVID remains elusive and subject of intense research efforts. Adults with long COVID are often affected by prolonged fatigue, which could be linked to neuromuscular function impairment. We hypothesised that there might be a correlation between subjective fatigue and an Electromyograph(EMG)-derived muscle fatigue index in adults with long-COVID.

Methods: As part of a neuro-cardiovascular instability assessment protocol, participants were asked to squeeze the thigh muscles as hard as possible for ten seconds during both supine resting and after active and passive standing (head-up tilt) tests. Surface EMG was used to capture on each leg the physiological activity of the vastus lateralis and rectus femoris