

Comments on: Effect of physical activity on long COVID fatigue

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Abstract

The authors of the Comments on: Effect of physical activity on long COVID fatigue by Daungsupawong F. and Wiwanitkit V. (2023) have highlighted certain aspects of future research that need to be considered before any conclusions can be drawn regarding the effect of previous physical activity and/or fitness on the course of long-COVID. We can only agree with this need, although we hope that the effects of SARS-CoV-2 infection will become less and less burdensome to manage. As we hypothesise in the last part of the article by Coscia et al. (2023), we think it is crucial to identify the molecular mechanism underlying the atrophic effect (if any) of the described disease states, which could originate from a local inflammatory storm induced by Spike binding to the ACE-2 receptor in muscle. When studies on muscle from patients will be available in sufficient numbers, we will be able to try to answer the still open questions.

Key Words: Effect; physical activity; long COVID; fatigue.

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The authors of the Comments on: Effect of physical activity on long COVID fatigue by Daungsupawong F. and Wiwanitkit V.¹ have highlighted certain aspects of future research that need to be considered before any conclusions can be drawn regarding the effect of previous physical activity and/or fitness on the course of long-COVID (comorbidities, vaccinations). We can only agree with this need, although we hope that the effects of SARS-CoV-2 infection will become less and less burdensome to manage in the near future. However, muscle fatigue that is not relieved by rest is a common symptom of many established or questionable viral diseases.² The use of the exercise approach to alleviate muscular symptoms has also been attempted under these conditions, but with at least dubious, if not contradictory, results. One only has to read the debate on the subject in the case of ME/CFS patients to understand the difficulty of giving a meaningful answer to the question: does planned physical activity help or harm the duration and intensity of the symptom of chronic fatigue?³ As we hypothesise in the last part of our article,⁴ we think it is crucial to identify the molecular mechanism underlying

the atrophic effect (if any) of the described disease states, which could originate from a local (muscular) inflammatory storm induced by Spike binding to the ACE-2 receptor in muscle.⁵ When studies on muscle material from patients are available in sufficient numbers, we will be able to try to answer the question posed above.

List of acronyms

COVID - coronavirus disease
ME/CFS - Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome
SARS-CoV-2 - Severe Acute Respiratory Syndrome by Corona virus 2

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