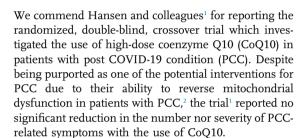
Coenzyme Q10 therapy in patients with post COVID-19 condition



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Mitochondrial dysfunction due to COVID-19 may be related to the over-secretion of cytokines, including interleukin-6 (IL-6) found in patients with COVID-19. Previously, it has been shown that the secretion of IL-6 impedes mitochondrial oxidative phosphorylation and initiates intracellularly mitochondrial production of reactive oxygen species.³ In fact, a recent systematic review and meta-analysis of 22 studies observed that increased IL-6 level correlates significantly with PCC.⁴

While CoQ10 supplementation can effectively reduce IL-6 levels, such reduction is seemingly impaired in patients who are overweight. As reported in a systematic review and meta-analysis, ⁵ a significant lowering effect of CoQ10 on IL-6 concentrations was observed in subjects with BMI <26 kg/m² (standardized mean difference [SMD]: -0.30; 95% confidence interval [CI]: -0.56 to -0.04) but not in individuals with BMI \geq 26 kg/m² (SMD: -0.32; 95% CI: -0.92 to 0.28).

Notably, more than half of the participants included in the randomized trial reported by Hansen et al. were either overweight or obese. Therefore, we believe it is worth performing a subgroup analysis on patients with normal/underweight before discarding CoQ10 in our armamentarium against PCC.

Contributors

All authors have equally contributed to conceptualisation, data curation, validation, writing the original manuscript, reviewing and editing.

Declaration of interests

All authors declare no conflict of interests.

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