


# Neurological Manifestations of Long COVID: A Single-Center One-Year Experience [Response to Letter]

Lisa Taruffi<sup>1</sup>, Lorenzo Muccioli<sup>2</sup>, Francesca Bisulli<sup>1,2</sup> 

<sup>1</sup>IRCCS Istituto delle Scienze Neurologiche di Bologna, Bologna, Italy; <sup>2</sup>Department of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy

Correspondence: Lorenzo Muccioli, Email [lorenzo.muccioli@gmail.com](mailto:lorenzo.muccioli@gmail.com)

## Dear editor

We read with great interest the letter by Li et al regarding the role of acupuncture and moxibustion in the treatment of the long-term effects of COVID-19.

While we have established therapeutic patterns for acute COVID-19, there are no standard therapeutic strategies for long-term manifestations, which are extremely variegated and include numerous neuropsychiatric symptoms.<sup>1,2</sup> The high prevalence of anxiety or depressive symptoms among those who have experienced even mild infections from SARS-CoV-2 suggests that therapeutic strategies should not be limited to pharmacological treatment but should involve psychological support.<sup>3</sup>

It is worth noting that traditional Chinese medicine is still not widely recognized in Europe, and its role has been marginal in managing the COVID-19 pandemic in most European and American countries. Although acupuncture has been included in treatment options for conditions such as tension-type headache, migraine, and fibromyalgia,<sup>4</sup> its role in managing long-COVID has yet to be defined. Regarding moxibustion, the lack of scientific evidence of its effectiveness obtained via clinical trials prevents its diffusion in Europe or US.

One of the most recent scoping reviews regarding the role of acupuncture and moxibustion in COVID-19<sup>5</sup> has pointed out their possible effectiveness and has included guidelines, systematic reviews, clinical trials, observational studies, and protocols. However, most of the recommendations on acupuncture and moxibustion included guidelines and consensuses based on the experts' experience and opinions and lacked details of the operation process, determining difficulty in developing common therapeutic strategies. Nonetheless, the interventions were often combined with other treatment methods (as Western treatment and other Chinese medicine, etc.), so, as reported, the results may exaggerate the effectiveness of acupuncture and moxibustion.<sup>5</sup> Furthermore, there were further limitations of the included studies, for instance, the sample sizes of included clinical trials were limited and even the randomized controlled trials frequently used subjective outcomes to predict the effectiveness of acupuncture and moxibustion, ie self-reporting questionnaires.<sup>6</sup>

A correct approach to the management of long-COVID should arguably start with the development and validation of biomarkers contributing to making an accurate diagnosis and serving the purpose of objectively delineating responses to treatment.<sup>7</sup> While effective long-COVID treatments are lacking, but certain myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) strategies like pacing and specific medications are promising. Low-dose naltrexone and antihistamines provide relief, while BC007 targets autoimmunity and anticoagulants address abnormal clotting. Apheresis and supplements (coenzyme Q10, d-ribose) seem to offer potential benefits. Case reports and studies highlight additional options: Paxlovid may ameliorate symptoms, sulodexide reduces the severity of the burden, probiotics show potential effectiveness, stellate ganglion block appears to alleviate dysautonomia, and Pycnogenol improves physiological measures and quality of life.<sup>7</sup>

In conclusion, to ensure an adequate response to the long COVID crisis, we need research that builds on existing knowledge and is inclusive of the patient experience, training and education for the health-care and research workforce, a public communication campaign, and robust policies and funding to support research and care in long COVID. Further scientific evidence is required to ensure the adoption of traditional Chinese medicine in the management of long COVID in Europe.

We look forward to seeing further research in this area.

## Disclosure

The authors report no conflicts of interest in this communication.

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