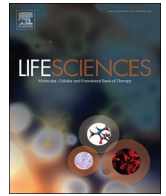




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Correspondence COVID-19: Melatonin as a potential adjuvant treatment



This correspondence provides a comment on the recent review article by Zhang et al. (Life Sci. 2020 Mar 23;250:117583. doi: <https://doi.org/10.1016/j.lfs.2020.117583>).

I would like to congratulate you for the published article “COVID-19: Melatonin as a potential adjuvant treatment” [1] and, at the same time, I would like to make some complementary considerations regarding COVID-19, melatonin, sleep deprivation and lung tissue. We know that during sleep there is production of pro-and anti-inflammatory cytokines, however, production of inflammatory cytokines is observed in sleep deprivation. In the experimental study by Nunes et al. [2], it was possible to demonstrate that mice in sleep deprivation had more inflammatory cytokines than those allowed for good quality sleep. In addition, mice in sleep deprivation after corticotherapy (dexamethasone) were not able to reduce production of IL-17 and TNF-alpha in the same way as mice that had good quality of sleep. Thus, this study shows that sleep deprivation aggravated the inflammatory process in lung tissue, and limited the action of corticotherapy. Given this scenario, I pose the following question: **Is sleep deprivation able to negatively interfere with the lung picture of COVID-19?**

On the other hand, it is known that mortality incidence of COVID-19 is much higher in the elderly, a population that frequently presents complaints both to initiate and to maintain sleep, and that melatonin, when well indicated, has a good response, increasing hours of sleep. Thus, I would like to suggest an investigation of sleep deprivation to patients with COVID-19, and ask a second question: **Would the use of**

melatonin, especially in elderly patients in sleep deprivation with COVID-19, in an early and even preventive way, be able to reduce the injury in the lung tissue of these patients?

Finally, I congratulate Zhang et al. for the research conducted, as well as my respect to the considerations exposed regarding COVID-19 and melatonin.

Competing interests

The author declares that there are no competing interests associated with the manuscript.

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