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Letter to the Editor

Can COVID-19 cause sudden sensorineural hearing loss?

We thank Pietro et al. for their comments on our recently published article (Kilic et al., 2020). In previous studies, viral infections have been reported to have an important role in the etiology of sudden sensorineural hearing loss (SSNHL) (Cohen et al., 2014). Therefore, it is not unreasonable to think that coronavirus disease 2019 (COVID-19), as a viral infection, may also cause SSNHL. Moreover, studies on the effects of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus on central and peripheral nervous systems have been recently published. Some of these studies have reported Guillain–Barré syndrome (Toscano et al., 2020) and impaired olfactory function (Eliezer et al., 2020) to be related to SARS-CoV-2. Another recently published study reported neurologic changes in 58 of 64 patients with COVID-19 (Helms et al., 2020).

When we observed an unexpected increase in SSNHL cases with no other symptoms in our ENT outpatient clinics during the COVID-19 pandemic, we thought that this might be related to COVID-19. Therefore, we investigated the possibility of SARS-CoV-2 infection in these patients. Using RT-PCR, we detected the presence of SARS-CoV-2 in one of our five patients (Kilic et al., 2020). Our study is the first in the literature to show that there may be a relationship between SSNHL and COVID-19.

The results of a recent study on the effect of COVID-19 on hearing functions supports our hypothesis (Mustafa, 2020). The author reported that both transient evoked otoacoustic emissions and high frequency pure-tone threshold amplitudes were significantly worse in the asymptomatic COVID-19 PCR-positive patient group.

Undoubtedly, routine healthcare services are disrupted during this pandemic, so the association of SSNHL cases with COVID-19 may have gone unnoticed in healthcare institutions due to the increased workload. Of course, in order to make a definitive diagnosis, studies demonstrating the presence of the virus in the relevant tissues, such as postmortem studies, are required. However, in the ongoing pandemic, we believe that every symptom should be considered and shared with the medical community. We believe that our article will increase awareness of this issue. This will encourage the design of large studies, in regions with high prevalence of COVID-19, as also suggested by Pietro et al.

Conflict of interest

The authors declare that they have no conflicts of interest.

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