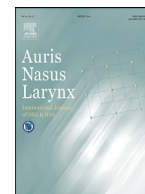




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Should patients with sudden deafness be tested for COVID19?



Dear Editor,

we read with great interest the article "ENT manifestation in COVID-19 patients" by M.W. Rl-Anwara et al. published in issue 4 of the journal *Auris Nasus Larynx*. We were surprised by the lack of a list of works discussing the impact of SARS-CoV-2 infection on the hearing organ (hearing loss, tinnitus) and the balance organ (vertigo, dizziness) in the list of works analyzed by the authors.

Our analysis of the literature shows that although both hearing loss (tinnitus) are uncommon in COVID-19, their clinical significance seems to be significant. To date, five case reports of patients with SSNHL (sudden sensorineural hearing loss) during SARS-CoV-2 infection have been published [1–5]. There were 4 men and one woman, all young (23–40 years old). In two of them, SSNHL was the only symptom reported by these patients, and the PCR test positive for SARS-CoV-2 was a surprise [1,2].

Sudden sensorineural hearing loss is defined as a hearing loss of at least 30 dB in at least three consecutive frequencies that develops within up to 3 days. It is a relatively common condition, with an estimated frequency of 5–15 per 100,000 people per year. In most cases, the etiological factor is unknown and the etiology is taken into account, e.g. immune, cellular stress response, vascular closure and just viral.

The possible relationship between hearing loss (including SSNHL) and viral infection is supported by many previous clinical observations and the results of experimental studies. Hearing loss from the virus has been reported with incl. rubella, measles, cytomegalovirus [6] and SARS-CoV-2 infection has been associated with neuritis, and loss of smell and taste [7,8]. Experimental studies have shown, among others, in the epithelium of the middle ear, the striatum and the spiral ganglion of people infected with SARS-CoV-2, an increase in the expression of the ACE2 receptor [9] and similar findings in brain cells [10].

Considering the possibility of an asymptomatic course of COVID-19 in a large number of people infected with SARS-

CoV-19, especially in young people, it is important to look for the first symptoms of this disease. Sudden hearing loss appears to be such a symptom. We believe that all patients with SSNHL should have a PCR test for SARS-CoV-2 infection, which could speed up diagnosis, possible isolation and initiation of treatment.

Ethical statement

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