



# COVID-19 and Hearing Implants

## Publications

Status Report  
(Aug 1 – Sep 15, 2020)

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# Publications

Eleven (11) publications were identified for the period between Aug 1 and Sep 15, 2020, with interesting information of the following topics:

## Epidemiology

### Immunity

The nature of the immune response following natural SARS-CoV-2 infection remains an area of active investigation. This is critical to determine whether vaccines will work. Controversial opinions are published recently regarding the immunity after SARS-CoV-2 infection, both supported with vast data.

- BMJ posted on Aug 16 a preprint Washington University, which, in contrast to other reports, concluded that immunity is durable for at least several months after SARS-CoV-2 infection, also for asymptomatic subjects. [Tyler J Ripperger et al. \(Aug 16, 2020\) BMJ](#). while,
- A study on the humoral immune response to infection with SARS-CoV-2 measured antibodies in serum samples from 30,576 persons in Iceland, which indicate that antiviral antibodies against SARS-CoV-2 did not decline within **4 months** after diagnosis. We estimate that the risk of death from infection was 0.3% and that 44% of persons infected with SARS-CoV-2 in Iceland were not diagnosed by qPCR. [Daiel F. Gudbjartsson et al. \(Sep 1, 2020\)](#)
- To investigate the viral load differences between asymptomatic and symptomatic patients, 303 patients with SARS-CoV-2 infection in Korea were studied. 110 (36.3%) were asymptomatic at the time of isolation and 21 of these (19.1%) developed symptoms during isolation. The cycle threshold values of RT-PCR in asymptomatic patients were similar to those in symptomatic patients. The results suggested that many individuals with SARS-CoV-2 infection remained asymptomatic for a prolonged period, and viral load was similar to that in symptomatic patients; therefore, isolation of infected persons should be performed regardless of symptoms. [Seungjae Lee et al. \(Aug 6, 2020\)](#)
- A new study by Chinese researchers from the Army Medical University in Chongqing reported that COVID-19 immunity is **short-lived for those who had mild symptoms** when they were first infected with the virus or were asymptomatic. The study also indicates that the absence of the key immune cells for long lasting ability to fight the virus and casts doubt on an individuals' ability to produce the complete immune response needed for a vaccine to work. [Leiqiong Gao et al. \(Sep 7, 2020\) BMJ preprint](#).

### Symptom modeling

- Onset of the symptoms matters: fever and cough are most common the first 2 symptoms in COVID-19, before nausea/vomiting and diarrhea, while diarrhea as an early symptom indicates a more aggressive disease. [Joseph R. Larsen et al. \(August 13, 2020\)](#)

### Testing

- A study with 50 participants demonstrated that saline mouth rinse/**gargle samples** demonstrated the highest combined user acceptability ratings and analytical performance when compared with saliva and HCW collected NP swabs. This sample type is a promising swab-independent option, particularly for outpatient self-collection in adults and school aged children. ([David M Goldfarb et al. \(Sep 14, 2020\)](#))

### Treatment

- JAMA published an issue regarding corticosteroids in COVID-19 ARDS, which includes 3 multicenter RCTs that assessed corticosteroid therapy in critically ill patients with COVID-19, as well as the WHO-sponsored prospective meta-analysis. Corticosteroids are inexpensive, readily available, and based on these data, are associated with reduced mortality in critically ill patients with COVID-19. [Hallie C. et al. \(Sep 2, 2020\)](#)

### COVID-19 and Inner ear function

- A literature review on **dizziness and COVID-19** was published by Ear, Nose and Throat ([Jeyasakthy Saniasiaya et al. \(Sep 15, 2020\)](#)). The search was performed using articles published in PubMed on August 1, 2020, to identify dizziness as a clinical manifestation of COVID-19. A total of 141 patients were pooled from this review. All patients included in this review had dizziness/vertigo as a presenting symptom. Dizziness was the initial presentation of COVID-19 in 3/141 patients (2.13%), whereby in 2 of these patients, dizziness was later followed by respiratory symptoms. The author emphasize that dizziness should not be taken lightly as it has been proven to be a notable clinical manifestation among COVID-19 patients. Parallel to that, association with other audiovestibular manifestations such as hearing loss and tinnitus ought to be determined.

### Health Care Workers

- A retrospective analysis of n = 750 patients who received semi-elective or emergency surgery in the Otolaryngology Department of the Friedrich-Alexander-University of Erlangen-Nürnberg suggested that continuing selected otorhinolaryngological surgeries is crucial for patients' health, survival, and long-time quality of life, yet, the protection of the medical personnel has to be granted. [Mueller, Sarina K. et al. \(Sep 7, 2020\)](#)
- Prof Dr. Mubarak M. Khan from India proposed 0.5% povidone iodine (PVP-I) as gargles and nasal drops for healthcare workers as well as the patients [?] attending the office consultations as a precautionary and safety measure during the COVID pandemic. [Khan, Mubarak Muhamed et al. \(Aug 19, 2020\)](#)

### Hearing Implant

- **Rehabilitation quality** under corona condition with the newly implemented **hygiene modality** was investigated in a survey on 109 adult CI users in **Freiburg**, Germany. The quality of rehabilitation and individual therapy were rated as qualitatively similar or improved. The hygiene measures during the rehabilitation stay eased subjective fears at the same time. The majority of patients were annoyed by wearing face masks but visors, protection shields and social distancing were more tolerated. The implementation of the new hygiene modalities within the therapeutic rehabilitation setting was well-accepted by patients allowing access to auditory rehabilitation. [A Aschendorff et al. \(Sep 2, 2020\)](#)
- Prof. Dham from India published an article in [Int J Pediatr Otorhinolaryngol](#) to elucidate challenges faced in conducting uninterrupted habilitation in times of the COVID-19 pandemic. It also brings forth possible innovative means our institute is implementing in reaching out to patients, modification of in person habilitation sessions and ways of keeping patients and their families motivated and not losing them to follow-up in such tiring times. [Ruchima Dham et al \(Aug 25, 2020\)](#)