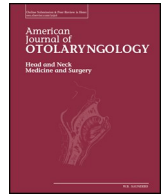




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COVID-19 and hearing difficulties

To the Editor,

With the coronavirus disease (COVID-19) outbreak Italy has been experiencing one of the saddest chapters in our country's history; about 160.000 positive cases have been registered since the start of the pandemic and ≈ 104.000 people are currently positive. With more than 20.000 deaths Italy has the highest COVID-19 death toll in the world. Also, 116 physicians died and more than 1000 health workers have been infected with COVID-19 so far. On the 9th of March 2020 the Italian Government ordered a national lock-down, prohibiting all unnecessary movement of the population except for work, health conditions and basic necessities [1]. COVID-19 is proving to be challenging for our public health system; all elective surgeries have been cancelled, as well as outpatients' consultations. Patients affected by Otolaryngology/Neurotology diseases are experiencing difficulties in reaching the best possible treatments, too. According to the British Society of Otolaryngology, most ear surgeries should be postponed until the end of COVID-19 pandemic, unless urgent (i.e. acute mastoiditis, otogenic intracranial sepsis, temporal bone malignancy, vestibular schwannoma with life-threatening brainstem compression) [2]. The same indication was given by the Italian Society of Otolaryngology-Head and Neck Surgery (SIOeChCF).

As a consequence, the COVID-19 outbreak is having an impact on mental health; further health problems due to the collective concerns, such as stress, anxiety, depression, insomnia, are emerging, leading people to commit suicide in the worst case [3]. In this dreadful scenario additional attention should be paid to people with impairments, such as hearing loss, who are living an extra condition of isolation besides the international social distancing and the Italian quarantine. Information and resources regarding COVID-19 are not always easily accessible for deaf people so that the World Health Organization (WHO) was asked to produce an international signing agreement for the Coronavirus and the COVID-19 [4].

Thanks to the efforts of the Otolaryngology (ORL) societies worldwide, the high risks of Otolaryngologists during this pandemic have been recognized [5]. An additional attention to our specialty is also due to the recent awareness of olfactory and gustatory dysfunctions as presenting symptoms of COVID-19 [6]. However, since the principal way of transmission of the COVID-19 is through the respiratory system, hearing research does not seem to be on the frontlines as other areas in this pandemic.

As a matter of fact, this is not true, but a more integrated strategy is requested, and, in response to the manuscript "Hearing loss and COVID-19: A note" [7], we would like to evidence other aspects. Some cultural associations in Italy have denounced the problems that patients suffering from hearing impairments have understanding and communicating with the health personnel constantly wearing personal protective equipment (PPE), especially when they have to go to the emergency room for any need. Face masks represent an ally in the fight

against COVID-19, but a challenge for patients with hearing loss for two main reasons; they reduce acoustic transmission and prevent lip reading [8]. Additionally, PPE makes more uncomfortable for the patients wearing hearing devices, such as hearing aids and cochlear implants.

Based on this background, we report our preliminary data regarding a series of patients visited at Foggia University Hospital, a tertiary referral center in one of the hardest hit provinces of Southern Italy, after the identification of the first Italian case on the 20th February 2020. Fifty-nine patients (37 males, 22 females; median age 60) with mild to profound grades of hearing impairment who were referred from the Emergency Department for urgent ORL consultations were included in this study. Among the conditions treated there were: epistaxis, dyspnea, tonsillitis, facial trauma, foreign bodies, hemoptysis. Patients were asked to classify the difficulties experienced in the emergency visit after the COVID-19 outbreak in relation to their hearing impairment as none, mild, moderate and severe. Furthermore, in regard to the use of face masks by health personnel, they were asked if they were more bothered by the reduced acoustic transmission or the impossibility of lip reading. Our results showed that 8 (13.6%) subjects did not have difficulties, 15 (25.4%) presented mild difficulties, 22 (37.3%) moderate and 14 (23.7%) severe. Interestingly, the main concern about face masks was the sound attenuation for 26 (44.1%) subjects and the impossibility of lip reading for 33 (55.9%).

Although these data are just preliminary, they shed light on the problems that people affected by hearing loss are experiencing during these difficult times. Many solutions have been proposed internationally so far (i.e. speech-to-text mobile apps, written scripts, masks with a plastic panel over the mouth) [9], but their application in medical daily routine is still limited and has to be tested yet. In conclusion, further research to provide effective solutions and global strategies is needed.

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Declaration of competing interest

The authors disclose no conflicts of interest.

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