



## Explosion in hearing aid demands after Covid-19 outbreak curfew

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Dear Editor,

The effects of the COVID-19 epidemic in the field of otorhinolaryngology have become clearer day by day. Facial pain and nasal congestion have been reported as the most common disease-related otolaryngological symptoms [1]. Smell and taste disorders are also common symptoms in patients with COVID-19 infection [2]. However, the relationship between Covid-19 infection and hearing loss is not as clear as these symptoms. Karimi-Galougahi et al. [3] reported that hearing loss and/or vertigo may be associated with COVID-19. In asymptomatic COVID-19 cases, transient evoked otoacoustic emissions test results were found to be significantly worse than their healthy peers [4]. The authors reported that viral infection may cause hearing loss by affecting outer hair cells.

The measures taken to reduce the spread of the virus during the COVID-19 pandemic have also adversely affected the living conditions of patients with hearing loss without COVID-19 infection. The first COVID-19 case was announced on 11th March 2020 in Turkey. With the reporting of the first COVID-19-related death on March 17, many measures were taken in a row. The closure of workplaces and schools, the restriction of travel and the compulsory use of masks were the main measures. On the other hand, curfew was imposed on individuals over 65 years old on March 22 and under 20 years on April 4. Living with crowded households is a common tradition in Turkish culture. The 'stay at home' policy pursued by the government has caused the entire household to spend more time together at home.

Communication problems with family members who have hearing loss but do not use hearing aids may have increased the awareness of all family members on this issue. As a matter of fact, with the removal of the curfew for individuals aged 65 and over on June 9, there was an explosion in applications to our clinic with the hearing aid request. To determine the effect of COVID-19 pandemic on hearing aid demand, the hospital database was retrospectively scanned. The number of applications to the otorhinolaryngology outpatient clinic and the number of patients recommended hearing aids were determined in April, May and June of 2019 and 2020. SPSS version 21 (SPSS software, Chicago, IL, USA) was used for data analysis. *P* values < 0.05 were considered to indicate statistical significance. Although the number of patients who applied to the outpatient clinic decreased during the pandemic period, an increase was observed in the number of patients requesting hearing aids (Table 1). This increase exploded when the curfews disappeared and gained statistical significance. The use of masks in the COVID-19 outbreak period led to a decrease in the transmission and intelligibility of sound. At the same time, the lack of lip movements due to the facial mask may increase the difficulties experienced by individuals with hearing loss. We believe that all these reasons will increase the use of hearing aids in individuals with hearing loss in the coming days.

In conclusion, we think that the use of hearing aids will increase even more in individuals with presbycusis during the COVID-19 outbreak.

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**Table 1** Hearing aid demands and number of applications to otolaryngology outpatient clinics in 2019 and 2020

	2019			2020			<i>P</i> value <sup>a</sup>
	Hearing aid request ( <i>n</i> )	Application to otolaryngology outpatient clinics ( <i>n</i> )	%	Hearing aid request ( <i>n</i> )	Application to otolaryngology outpatient clinics ( <i>n</i> )	%	
April	65	3747	1.73	12	715	1.68	0.916
May	68	3841	1.77	20	943	2.12	0.481
June	49	2923	1.67	61	2419	2.52	0.033*
Total	182	10,511	1.73	93	4077	2.28	0.039*

\*Statistically significant

<sup>a</sup>Chi square test

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### Compliance with ethical standards

**Conflict of interest** The authors declare that they do not have any conflict of interest and/or competing interests regarding the present letter whatsoever.

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