Mask-induced ear injury in schizophrenia: A novel complication in the COVID-19 era

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Dear Editor,

The long COVID-19 pandemic has significantly impacted our daily lives, including that of patients. Moreover, people have been forced to wear masks in public spaces to prevent infection. Thus, more attention is being paid to mask-induced ear injury as a novel form of medical device-related pressure injury in the COVID-19 era. Medical device-related pressure injuries among patients treated in the intensive care unit have been discussed. These discussions now include injuries occurring in medical staff working in the frontline of COVID-19. Because of mild cases, they may be underestimated in the general population. However, such injuries in patients with mental illnesses may worsen. Levine et al. reported one case of dementia in a long-term care residence showing ear injury induced by continuous mask use. They discussed dementia as a risk factor for ear injuries. Here, we present a case of schizophrenia with ear injuries induced by the prolonged usage of masks during the COVID-19 pandemic. Written informed consent was obtained from the patient in accordance with ethical guidelines for case reports of the Japanese Society of Psychiatry and Neurology.

Our patient was a woman in her 40s diagnosed with schizophrenia based on the criteria described in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders. She had no significant medical or family history of schizophrenia. She graduated from technical school and had a job before the onset of schizophrenia. Her symptoms began in her 30s, and her illness had lasted approximately 10 years, being admitted four times before her current admission. Her most recent admission was before the COVID-19 pandemic. On admission, her symptoms included auditory verbal hallucinations and delusions but improved with clozapine. During the pandemic, her hospital stay was prolonged (more than 2 years after the pandemic started). Regarding the Positive And Negative Syndrome Scale, her positive, negative, and general scores were 14, 26, and 47, respectively. Her Life Skills Profile was overall 69 points (self-care, 19; nonturbulence, 14; social contact, 13; communication, 11; and responsibility, 12), suggesting poor self-care. Her cognitive function was assessed using the Brief Assessment of Cognition in Schizophrenia, showing a severe level of cognitive impairment (composite Z-score, −4.10; verbal memory, −4.08; digit sequencing, −1.94; token motor task, −3.43; verbal fluency, −3.05; symbol coding, −2.80; and tower of London, −0.29).

At a point in time, a nurse noticed injuries in both her ears, with the left ear injury being more severe (see. Fig. 1). This was clearly induced by the prolonged use of masks. When we asked her about it, she told us that she had perceived them for 1 week, and she initially did not realize that these injuries were caused by masks. She eventually understood this after providing a repetitive explanation. These injuries also reminded us of her inappropriate mask use, such as mask use even while she slept and wearing a mask on her chin, leading to longer and higher tension on her ears than usual. The injuries were improved using gentamicin sulfate, and her original mask was replaced with new masks to avoid pressure on the ears.

The mechanism of mask-induced ear injury is considered a pressure ulcer, and the unique anatomy of the postauricular area makes the ear vulnerable to such. Recommendations for prevention include ear injury education, self-check of mask tension, regular inspection of the skin/ear conditions, and using masks only when necessary. Conversely, in schizophrenia, poor hygiene is well known and associated with negative symptoms. Low sensitivity to pain is also evident in patients with schizophrenia. Cognitive impairments in schizophrenia cause difficulty in solving daily life problems as well. These factors may increase the risk of mask-induced ear injuries in patients with schizophrenia. If the patient had lived alone and no one had checked regularly, the ear injuries might have been worse. Complications not recognized by medical staff may result in severe outcomes. Generally, continuous support for appropriate mask-wearing is important in psychiatric clinical practice, especially for patients with schizophrenia, as well as the encouragement of handwashing and education regarding specific knowledge.

In conclusion, mask-induced ear injury is a novel complication of the COVID-19 era, of which patients with schizophrenia are at risk. We, therefore, need to recognize this risk, examine it, and encourage patients with schizophrenia to follow the recommendations mentioned above.

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Fig. 1 An injury in the postauricular area of the patient’s left ear.
Rethinking the organizational culture of the health system to address burnout

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The experience of the successive waves of the COVID-19 health crisis has had a considerable impact on health systems and health care workers in different countries (e.g., Italy, England, Spain, United States, and Canada). Indeed, through dramatic videos showing the plethora of patients crammed into hospitals in respiratory distress, the entire planet has understood the magnitude of the problem. In the midst of this unprecedented crisis, health care workers continue to provide care, offer comfort to patients at the end of their lives and isolated from their loved ones, inform and ease their pain from a distance with the announcement of various and sometimes upsetting news, share the pain of patients who have had their surgeries or treatments canceled because of the massive offloading, and take care of their colleagues who are sick or afraid of being infected. For these reasons, the issue of psychological burden that health care workers carry makes sense. Burnout is a “syndrome resulting from chronic work stress that has not been successfully managed,” resulting in feelings of physical and emotional exhaustion, withdrawal from work, and loss of professional effectiveness.1

Prior to the COVID-19 pandemic, severe burnout was typically observed in 20% to 40% of health care workers.2 In 2018, according to the Canadian Medical Association, physicians were reporting alarming levels of burnout (30%). Since the advent of the pandemic, international data highlight an alarming rate of burnout, including 76% among health care workers in the United States3 and 80% among nurses in Spain.4 Other studies in Italy, China, and France report similar concerns. Canada is not on the sidelines of this trend. Several Canadian studies indicate that in the fall of 2020, 60% of health care workers surveyed were experiencing burnout,5 with the burnout rate among physicians in Vancouver and Ontario at 68% and 72.8%, respectively.6 In Quebec, 70% of health care workers, primarily nurses, reported high stress and mental health deterioration.7

If you were to ask a health care worker what brings them joy in their work, they would most likely tell you that it is the act of caring for others. Over time, the positive emotion of caring slowly evaporates and is replaced by burnout. The significant workload takes on disproportionate proportions. Legitimate absenteeism of peers leads to presenteeism. Professionals are forced to report to work in suboptimal mental and physical states to provide safe, quality care. This affects the ability of professionals to individually cope with the stresses they face in their work.2

Therefore, the consequences of burnout are not negligible because of the direct repercussions on the patient and the population: a decrease in the quality of care, an increase in medical errors, a decrease in caregiver productivity and patient satisfaction.8 What happens when the roles are reversed, and the professional plays the role of the patient because of the physical and mental repercussions of burnout? It is unfortunate that decisions about mass offloading or closing rural emergency departments have to be made. Especially since the harmful repercussions of burnout go far beyond the professional sphere by encroaching on the personal and family lives of professionals.

Furthermore, the high probability of a new epidemic wave following the emergence of new variants could put additional pressure on already stretched staff. The experience of the severe acute respiratory syndrome (SARS) outbreak of 2003, which was much more limited in scope and severity, suggests that the chronic stressors of the pandemic on health care workers will persist for several years following the last wave.9 What about the much desired “return to normal”? That would be to turn back and return to organizational conditions that are not conducive to the quality of work life of health workers.

Several strategies to mitigate burnout have already been proposed, however, and supported by the literature.10 Research data suggest that burnout mitigation strategies are primarily targeted at nurses, early career professionals including trainees, and those working in emergency departments and intensive care units.2 But what about their implementation within organizations?

In short, burnout is an organizational (not individual) problem that requires organizational solutions. Thus, organizational and structural interventions, such as maintaining sufficient staff, leadership, improving working conditions, autonomy in their professional role, support networks, and adequate support for workers in moral distress could have a greater effect on reducing burnout.2 What if organizations involved the professionals themselves in the search for solutions and used a more bottom-up management approach to foster joy at work?

Disclosure statement
The authors declare no conflicts of interest.

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