An interesting complication of COVID-19: Partial avulsion of the auricle due to face-mask use in a psychotic patient

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SUMMARY

COVID-19, which develops as a result of SARS-CoV-2 infection, was declared a global pandemic by the World Health Organization shortly after its discovery in Mainland China. Social distancing, hygiene and the use of personal protective equipment have been strongly recommended worldwide as COVID-19 spreads through droplets. In Turkey, a mandate was issued on September 8, 2020, requiring individuals to wear face masks in all areas other than their own residences and stating that those who do not comply with the mandate will be subject to various criminal sanctions. In various parts of the world, such practices have aimed to popularize the use of face masks, but detailed information about individuals with special conditions such as children, the elderly, psychiatric patients, and patients with neurodegenerative diseases has not been sufficiently included. We believe that people with psychiatric illness have a special place in this group due to the nature of mental illness. Perceptual impairments in patients with schizophrenia may lead to exaggerated application of recommended precautions. This has raised the issue of whether personal protective equipment may cause undesirable effects as a result of prolonged exposure in these individuals. In this case report, we present a partial auricle avulsion in a patient with schizophrenia who used his mask for a long time without removing it because he was afraid of mandatory face mask use. Our case is one of the few psychiatric cases in the literature in which auricular avulsion due to prolonged face mask use is seen.

Keywords: COVID-19, pandemic, face mask, schizophrenia, auricular avulsion

INTRODUCTION

COVID-19, which develops due to SARS-CoV-2 infection, was declared a global pandemic by the World Health Organization shortly after its discovery in Mainland China (1, 2). Because COVID-19 spreads through droplets, social distancing, hygiene and personal protective equipment use have been strongly recommended both in Turkey and other countries of the world. In Turkey, a mandate that required every person to wear facemasks in all spaces except one's own residence was published by the government on 8 September 2020, and to ensure compliance, it was stated that various criminal sanctions would be issued against those who would not abide by the mandate (3, 4). In different parts of the world, it has been aimed to make the use of facemasks prevalent with such recommendations, practices and mandates. Still, it has been seen that detailed information has not been included adequately about individuals who have special conditions such as children, the elderly, psychiatric patients, patients with neurodegenerative diseases and those with chronic respiratory distress. We believe that people with psychiatric illness have a special place in this group due to the nature of the mental illness. There are various studies in the literature on the adherence of patients with schizophrenia to COVID-19 precautions (5). Perceptual disorders in patients with schizophrenia may lead to the exaggerated application of the recommended measures, too. This has raised the issue of whether personal protective equipment may cause undesirable effects due to prolonged exposure in these individuals. This case report presents the case of partial avulsion of the auricle observed in a patient with schizophrenia who used facemasks for protracted durations without taking

DOI: 10.5505/kpd.2024.11354

Cite this article as: Aydin S, Gunduz E, Akan M. An interesting complication of COVID-19: Partial avulsion of the auricle due to prolonged use of a face mask in a psychotic patient. Turkish J Clin Psych 2024; 27:250-253

The arrival date of article: 22.03.2024, **Acceptance date publication:** 29.06.2024

Turkish J Clinical Psychiatry 2024;27:250-253

Picture 1: Avulsion extending up to the crus of the helix of the auricle, and the epithelized wound edges.

Picture 2: De-epithelialized wound edges before suturing

Picture 3: Sutured view of the avulsion

them off due to his fear of enforcement of the compulsory facemask policy. Our case is one of the few psychiatric cases in the literature in which auricular avulsion due to prolonged face mask use is seen.

CASE REPORT

The 32-year-old male patient, who applied to the otorhinolaryngology outpatient clinic with the complaint of partial avulsion on the upper part of his left auricle, was referred to the psychiatry outpatient clinic after a physical examination, because he had schizophrenia. In the patient's history, it was learned that he had been wearing the facemask that he used for protection against COVID-19 constantly for a duration of longer than three months. He stated that he was worried about the sanctions he could face if he did not wear a facemask, and due to this concern, he had not taken off his facemask even when sleeping. In the anamnesis obtained from his family, it was found out that he had been receiving treatment with olanzapine 10 mg/day and paliperidone 100 mg/month. He had been living in the streets separately from his family for approximately three months, and thus, his family had not been able to control him.

On psychiatric examination, consciousness was clear and orientation to person, place and time was intact. His general appearance was age-appropriate with decreased self-care. There were unused face masks in his jacket pocket. Despite the avulsion on the auricle, he was still wearing a facemask on his ears. He occasionally made eye contact. He tended to watch and examine the objects in the outpatient clinic room. His emotional expression was limited. He had spontaneous speech and responded adequately and purposefully to the questions asked. He had delusions that the state was monitoring and controlling him through hidden cameras at home and security forces outside. He reported that he took care to wear his mask at all times to avoid punishment and being infected. He had auditory hallucinations of human voices commenting on the measures he had taken, sometimes accusing him. His ability to assess reality was impaired and his insight into his illness was diminished. He reported no use of alcohol or psychoactive substances. On physical examination the avulsion on the ear of the patient extended up to the crus of the helix of the auricle, and the wound edges were epithelized (Picture 1).

As a result of the history obtained from the patient and his family, clinical interviews and evaluations, it was thought that the patient had a diagnosis of schizophrenia and was in the exacerbation period and his medical treatment was organized. The patient was offered hospitalization in the psychiatry inpatient clinic, but the patient and his relatives refused. Thereupon, his treatment was planned to be carried out with close outpatient follow-up. It was learned that the patient was receiving paliperidone palmitate 100 mg/month and olanzapine 10 mg/day, and according to the information obtained from medical records and anamnesis, the last depot injection was administered one month ago. The new monthly paliperidone palmitate dose was administered immediately, and oral treatment was arranged as olanzapine 20 mg/day and alprazolam

2*0.5 mg/day. The patient was referred to the otorhinolaryngology outpatient clinic and informed that the avulsed auricle needed to be sutured across. After the patient and his family agreed to the intervention, the epithelialized wound edges were de-epithelialized under sterile conditions and local anesthesia (Picture 2). The avulsion was sutured using 4/0 absorbable suture material and a satisfactory result was obtained (Picture 3). Prophylactic oral antibiotic treatment was started. The patient was provided with a simple neck protector and was ensured to wear the face mask on the neck protector without touching the ears.

DISCUSSION

In the literature, various studies have been conducted to evaluate the compliance of psychiatric patients with protective measures during pandemic periods. In most studies, preventive behaviours were associated with fear of infection (6,7). In the study by Jung et al. examining the factors related to mask use among inpatient psychiatric patients during the COVID-19 pandemic, wearing a mask was found to be significantly associated with voluntary admission, having a diagnosis of psychosis and being hospitalized in a public hospital (6) In a study conducted during the pandemic swine flu, in people with schizophrenia, higher levels of predicted fear were associated with increased likelihood of perceived substantive risk from swine influenza and self-reported willingness to adopt protective measures against it (7). During pandemic periods, individuals in vulnerable populations such as psychiatric patients should be carefully monitored for compliance with protective measures. This case report is important to show the impact of COVID-19 on vulnerable populations, including those with psychiatric illnesses such as schizophrenia, where perception disorders are common. Our patient who was suffering from schizophrenia kept wearing his facemask constantly due to the delusion that he could be under monitoring and fear of getting infected, and he experienced auricular trauma. This case is also one of the few cases in the literature regarding trauma to the auricle due to prolonged and uncontrolled use of face masks.

Mask-induced ear injuries are usually due to the development of pressure ulcers, and the anatomy of the auricular region makes the ear vulnerable to such injuries (8). Recommendations for prevention include regular inspection of the skin/ear conditions, self-check of mask tension, ear injury education and using masks only when necessary (9). In the literature, a case of ear injury due to prolonged mask use in a patient with schizophrenia who was still being treated in the hospital has been reported. The healthcare staff recognised the injury and intervened in the early period (10). In another case, a schizophrenia patient in a long-term care facility was reported with a partial transection from the concha to the helical rim due to prolonged mask use, similar to our case (11). In our case, the ear injury worsened because the patient was in the exacerbation period and had left home and lived separately from his family. Poor hygiene conditions and high pain threshold in schizophrenia may have contributed to this result (10). Although studies are reporting good compliance with precautions in patients with schizophrenia (5), in some studies, it has been suggested that cognitive impairment reduces the perception of the necessity of self-protection and awareness of COVID-19 in schizophrenia. These reasons increase the risk of COVID-19 positivity in a patient with schizophrenia (12), and it has been reported that a patient with schizophrenia have difficulty in complying with preventive regulations (13). Contrary to previous information in the literature, it is noteworthy that our case had COVID-19-related delusions and hallucinations, excessive compliance with COVID-19 precautions, and as a result, partial avulsion of the auricle.

In conclusion, our case is important as it demonstrates the rare consequences of the COVID-19 pandemic in psychiatric patients. We believe that in extraordinary situations such as a pandemic, psychiatric patients in vulnerable populations are of particular importance and should be monitored more closely.

Note: Permission for publication and use of photographs has been obtained from the patient's relative.

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