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Letter to the Editor

Reduced Rate of Hospital Admission for Exacerbation of COPD and Asthma During COVID-19 Pandemic

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Dear Editor,

We read with interest the article titled "Chronic Pulmonary Diseases and COVID-19" published in Turkish Thoracic Journal, signed by Ebru Çakır Edis.[1] Despite we continued to serve during the COVID-19 outbreak, we noticed a decreased number of hospitalizations for airway diseases. Therefore, we conducted a study to investigate the impact of the COVID-19 outbreak on hospital admissions for exacerbations of chronic obstructive pulmonary disease (COPD) and asthma. Since we think it may contribute to our country's data, we wanted to share the results with you.

We investigated the number of hospitalizations for exacerbations of COPD and asthma between March 1 and April 30, 2020, during the COVID-19 outbreak and compared this data with the same period both in 2018 and 2019 for preventing seasonal effects on exacerbation rates. Hospitalization numbers were as follows: 28 COPD, 14 asthma during COVID-19 outbreak in 2020; 65 COPD and 27 asthma in 2019; and 63 COPD and 31 asthma in 2018. There was a 55% of reduction in hospital admissions compared to previous years. Comparison of first admission sites of hospitalized patients revealed that in 2018 and 2019, most of the patients were hospitalized from our outpatient clinic; however, in 2020, hospitalizations from the emergency department increased significantly ($P = .005$). The mean duration of hospitalization in COPD patients was significantly shorter in 2020 ($P = .007$). The hospitalization period was also shorter in asthmatics in 2020; however, it was not statistically significant. There was no significant difference in-hospital mortality rate among years (2018; 2 patients (2.1%); 2019; 4 patients (4.3%); 2020; 2 patients (4.7%), $P = .4$).

These results might be related to anxiety and fear of contamination risk. COVID-19 pandemic caused anxiety, distress, and panic among people, which could have worse outcomes than the virus itself.[2] The determination of the hospitals as pandemic hospitals increased the patients' anxiety about the risk of contamination and caused a significant reduction of hospital admission even for acute coronary syndromes.[3,4] Also, the spread of the information through different media platforms that COVID-19 has worse outcomes (severe disease, need of intensive care unit, and death) in elderly and patients with chronic diseases, including COPD and asthma, has increased anxiety.[5]

Furthermore, the Turkish government established a lockdown for people > 65 years old after March 21, 2020, in order to control the disease, which also could affect the admission to the hospital for this population. This was especially important in our COPD population since most of them were > 65 years old.

Exacerbations have a serious impact on COPD and asthma prognosis, and one of the treatment goals is to prevent exacerbations and decrease hospitalizations. Both in COPD and asthma, self-management interventions have been recommended by guidelines in order to reduce emergency department visits and improve disease control. An action plan that includes recognition of worsening, how to increase medications, and when to seek medical help has shown to improve health status and decrease emergency department visits and respiratory-related hospital admissions in COPD and asthma.[6,7] We have special outpatient clinics for asthma and COPD, and all patients are provided with regular education about their diseases, inhaler use, and exacerbation management. Although they are not given written action plans, they can reach their physicians via phone or mail when they seek medical attention. It is not clear whether avoiding hospital admission increased mortality rates in COPD during the pandemic in our city since we did not include overall mortality data in this study; however, the in-hospital mortality rate was not different compared to previous years. We thought that regular education and providing contact with their physicians helped them survive during the pandemic period without any serious complications.

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This pandemic also revealed the necessity and feasibility of new assessment methods, such as internet hospital and telemedicine, that do not require patient admission to the hospital.[8,9] It seems that as clinicians, we also need to implement telemedicine in our future clinical practice.[9]

In conclusion, the COVID-19 outbreak is associated with a reduction of hospital admission for the exacerbation of COPD and asthma. Since the patients with chronic lung disease avoided hospital admission during the pandemic, self-management intervention and action plans should be especially highlighted in the management of these patients, and every effort should be taken in order to prevent undesired outcomes of COVID-19 in this patient population.

Peer Review: Externally peer-reviewed.

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