

Lifestyle Changes and Exacerbation Frequency of COPD in Times of the Pandemic

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Abstract

Aim: The aim of this study is to analyze COPD exacerbation rates and the effect of patients' behavioral changes on the exacerbations during the pandemic. **Materials and Methods:** Conducted in a reference hospital for chest diseases, patients hospitalized with an exacerbation of COPD between 11.03.2019 and 11.03.2020 were designated. Patients' COPD exacerbations requiring emergency department (ED) visits and/or hospitalization were compared between 11.03.2019 - 25.12.2019 (pre-pandemic period) and 11.03.2020 - 25.12.2020 (pandemic period). Each patient was surveyed with 25 questions using telemedicine. **Results:** Of all the 256 patients, 203 (79%) were male and the mean age was 66 ± 10 . Compared to the previous year, ED visits and hospitalizations in our hospital were significantly lower and less frequent ($p < 0.0001$, for both). Smoking habit decreased in 9%, and 60% had hardly spent time in outdoors (e.g., parks and gardens). Only three patients reported to spend time indoors (e.g., cafes and restaurants). Household mask-use rate while contacting the patient was 50%. As a COPD patient, 33% expressed themselves as "feeling better". Overall, 92 (36%) patients were recorded not to have any exacerbation, 34 (13%) to have no attacks of worsening that they were managed at home. Novel exacerbation risk was found to independently correlate with younger age (OR: 0.944, CI: 0.904-0.986, $p = 0.010$) and having more frequent episodes of exacerbation in the pre-pandemic period (OR: 1.2, CI: 1.025-1.405, $p = 0.023$). **Conclusion:** COPD patients specifically benefited from confinements, restrictions and lifestyle changes. Further studies are needed to better identify the most critical factors leading to these positive outcomes. A permanent patient management guideline for COPD patients could be formulated where the weight of lifestyle factors is elevated.

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