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Commentary

Commentary on COPD Management during COVID-19 Epidemic

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In the following commentary we will give the definition of both COVID-19 and COPD, then will comment on management with inhaled and oral corticosteroids.

What is COVID-19?

Coronavirus disease 2019 COVID-19 is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2. SARS-CoV2 formerly called 2019-nCoV which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. On March 11, 2020, the WHO a global pandemic [1].

What is COPD?

Global initiative for Chronic Obstructive Lung Disease (GOLD) Definition: Chronic Obstructive Pulmonary Disease COPD is a common preventable and treatable disease that is characterized by persistent respiratory symptoms and airflow limitation that is due to airway and/or alveolar abnormalities usually caused by significant exposure to noxious particles or gases and influenced by host factors including abnormal lung development. The chronic airflow limitation that is characteristic of COPD is caused by a mixture of small airways disease and parenchymal destruction (emphysema) [2].

In this commentary article; we will answer tow important questions:

1. Are COPD Patients at increased risk of developing COVID-19?
2. What are the most important considerations about management of COPD patients during COVID-19 Pandemic?

GOLD consider that COPD patients are amongst the worst affected by COVID-19.

Unfortunately, Patients who have chronic lung disease and develop COVID-19 have worse outcomes when are hospitalized, with a case fatality rate of 6.3% compared to 2.3% overall in China [3].

GOLD advise COPD patients not to avoid and not to discontinue inhaled (or oral) corticosteroid combined to long acting bronchodilators during COVID-19 epidemic [2].

NICE also advise COPD patients who established on ICS combined to long acting bronchodilators to continue to use them.

NICE encourage COPD patients who are still smoking to stop to reduce the risk of poor outcomes and risk of acute exacerbation [4].

On the other hand, study by scientist at Imperial College London, University of Newcastle and Prokarium and published on the preprint server bioRix* in June 2020 showed that ICS reduces ACE2 levels in human and animal lung tissue. (the receptor that that indicates that ICS may has protective effect against COVID-19 in COPD patients [5].

According to a statement by trial investigators at the University of Oxford, dexamethasone was associated with reduced mortality risk among patients with severe COVID-19 [6]. Consequently, WHO welcomed dexamethasone use in treating critically ill COVID-19 patients

In Malaysia, the Thoracic Society pointed that aerosol-generating procedure, nebulization could have unnecessary risks of infection transmission compared to inhalers and large-volume spacers and advises to stop use nebulizers [7].

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