Respiratory Disease Management during COVID 19 Pandemic

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Commentary

With the recent COVID-19 outbreak, Antipyretic drug have been in the spotlight, with French health officials recommending that Antipyretic drugs like ibuprofen be avoided due to fears that they could exacerbate the path and outcome of COVID-19 infection. Although the respiratory effects of therapeutic doses of antipyretic drugs in infections like COVID-19 are unknown, these drugs are associated with cardiovascular, renal, and gastrointestinal side effects, and they can induce asthma in people with a particular sensitivity. Given that antipyretic drugs are a common form of symptomatic relief in respiratory infections, it is critical to figure out whether short-term antipyretic drug use is harmful to patients with COVID-19, as well as those with lower respiratory tract infections in general. In view of the ibuprofen–COVID-19 controversies and the latest pandemic's increasingly evolving situation. Complications of the cardiovascular or renal systems could not be properly treated. There may be a general upward trend in pleuro-pulmonary complications, but a downward trend in mortality.

Acute pulmonary embolism (APE) is a widespread and deadly disorder that adds to the global burden of cardiovascular disease, not just in terms of mortality but also in terms of financial costs to healthcare systems. The existing recommendations stress the importance of early risk stratification in evaluating individual outcomes and making treatment decisions in APE patients to help improve patient management.

In both acute and chronic heart failure, impaired renal function has been reported as a risk factor. This may be because decreased renal function can cause changes in cardiac output, anemia, and other physiological issues. Renal dysfunction, a symptom in pulmonary embolism patients, has recently been suggested to lead to risk stratification in pulmonary embolism patients; as a result, renal function has been proposed to be included in the APE risk assessment model. Chronic kidney disease did not predict a bad prognosis, but it did raise the overall mortality rate of patients with acute pulmonary embolism. Acute kidney injury can be a predictor of overall mortality, and it doubles the overall mortality rate of patients with acute pulmonary embolism. Renal function can be a key factor in determining a patient's prognosis after a pulmonary embolism.

Idiopathic pulmonary fibrosis (IPF) is a fibrotic lung disease that is chronic, progressive, and eventually fatal. IPF causes lung parenchymal fibrosis, which leads to a gradual loss of pulmonary compliance and a decrease in gas exchange capability. Dyspnea is becoming more common, as is a dry cough, reduced exercise capability, and fatigue. Idiopathic pulmonary fibrosis is one of the most dangerous types of IIP, with chronic, progressive fibrosis, inexorable loss in lung function, progressive respiratory failure, and a high mortality rate. To aid in prognostication and treatment selection, an accurate diagnosis is needed.

Person prognostication is difficult in IPF because of the disease's variability and reaction to anti-fibrotic therapy. To achieve improved results in the future, progress toward more personalized patient-centered healthcare is needed. Many biological markers or biomarkers have been investigated as potential predictors of prognosis or treatment response in IPF, with many blood biomarkers showing promise in the evolving concept of precision medicine. During the COVID-19 pandemic, the focus has been on the dangers of cardiometabolic disease; less attention has been paid to chronic respiratory disease, even though the pre-existing respiratory disease may aggravate COVID-19 illness severity. A comprehensive study showed conflicting evidence on asthma, with some data indicating that hospitalization was similarly likely, but COVID-19 would be more severe; nevertheless, the evidence was weak. Chronic obstructive pulmonary disease (COPD) was linked to four-fold increased risk of severe disease, according to a systematic review and meta-analysis of cohorts of persons hospitalized with COVID-19. COVID-19 was commonly responsible for causing an acute exacerbation of the chronic respiratory disease, sometimes with accompanying comorbid disorders, in addition to the challenge of differential diagnosis from non-COVID acute respiratory disorders. Patients with septic shock and multiple organ failure were particularly vulnerable.

Even when their symptoms flare up, people with chronic conditions like asthma and COPD may choose to stay at home rather than seek medical help. In persons with asthma and COPD, mid- or long-term seclusion or quarantine has been linked to higher levels of sadness, stress, anxiety, impaired symptom control, and a lower quality of life. Chronic disease patients who were not infected with SARS had worsened illness/symptom control after SARS.

COPD patients are at a higher risk of contracting the COVID-19 virus, developing a more severe form of COVID-19 disease, and dying from it. COPD patients should be encouraged to take more stringent steps to avoid potential COVID-19 exposures, and every effort should be made to limit their contact with suspected or confirmed COVID-19 cases. Staying at home, practicing good hand hygiene, and wearing a mask are essential ways to avoid contracting COVID-19. COPD must be well-managed with the use of suitable medication and immunization. Following the initial phase of the disease, patients with AECOPD and COVID-19 may be at a higher risk of cardiovascular events and mortality. Patients should be thoroughly monitored throughout this vulnerable period, with a management strategy that focuses on early detection of cardiovascular problems, especially in the 30 days after the resolution of the acute phase.

If you use a nebulizer to take inhaled medications regularly, you can continue to do so as prescribed. If you have COVID-19 or another respiratory illness, however, using a nebulizer may raise your risk of infecting others through the mist you exhale. To avoid this issue:

- Keep your nebulizer in a different room from the rest of your house. You could also ask your doctor about temporarily switching to an inhaler or purchasing a specific nebulizer filter that decreases the amount of mist you breathe—handwashing for 20 seconds with soap and water regularly.
- Use an alcohol-based sanitizer with at least 60% alcohol if soap and water aren't available.
- When going out in public, wear a mask or a face covering. Masks or face coverings can give some protection from inhaling the virus for...
you and the people around you. They may also serve as a reminder not to touch your face while out in public. If you have trouble breathing through a standard mask, consider sewing your fabric mask or covering your nose and mouth with a scarf or handkerchief. These alternatives will provide some protection while allowing for more airflow. Ensure that your cotton masks/face coverings are washed regularly.

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