

Chronic Obstructive Pulmonary Disease

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Chronic obstructive pulmonary disease (COPD) is a common inflammatory disease affecting the lungs. The leading cause of COPD is smoking. It is described as peripheral inflammation and narrowing of the airways (Gundry, 2019). COPD consists of respiratory symptoms and alveolar complications (Gundry, 2019). Impaired gas exchange results in low oxygen levels and high carbon dioxide levels.

Signs and symptoms involved with this disease process include sputum production, breathlessness, cough, and wheezing (Gundry, 2019). Common vital signs for COPD are tachycardia, tachypnea, hypoxia, raised temperature, and hypercapnia (Gundry, 2019). Multiple diagnostic tests can be done to diagnose COPD. Some examples include pulmonary function tests, chest x-ray, and arterial blood gas analysis (ABG). This student's patient had a chest x-ray upon admission, as well as arterial blood gas, completed. In this patient scenario, the chest x-ray showed a pleural effusion. Pleural effusions are joint among patients with respiratory conditions, such as COPD (Shengmie et al., 2018). Pleural effusions are a buildup of fluid within the pleural cavity. Patients must receive prompt treatment.

An ABG test measures how well the lungs bring oxygen into the blood and remove carbon dioxide (Mayo Clinic Staff, 2020). The ABG results of the patient's student showed poor oxygen perfusion. Pulmonary function tests involve the measurement of air into and out of the lungs and whether the lungs deliver enough oxygen to the rest of the body (Mayo Clinic Staff, 2020).

Smoking cessation is the most critical aspect of the management of COPD. Bronchodilators, inhaled steroids, combination inhalers, and lung therapy are interventions that can be done to help manage the disease (Mayo Clinic Staff, 2019). This patient receives Flonase and Levalbuterol as a part of her treatment regimen. This patient experienced an acute

exacerbation of COPD, which is when symptoms worsen for days or weeks. It is essential to seek medical treatment promptly when this occurs (Mayo Clinic Staff, 2019). Additional medications, treatments, and oxygen therapy may be needed when this happens.

References

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