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Asthma Chronic Obstructive Pulmonary Disease Overlap Syndrome

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Introduction

Throughout recent years, asthma and chronic obstructive pulmonary disease (COPD) have been viewed as two separate diseases, with two separate pathophysiologies, and two different treatment plans, essentially overlooking the possibility of a dual diagnosis (Barnes, 2015). In 2013, the Global Initiative for Chronic Lung Disease (GOLD) and Global Initiative for Asthma (GINA) acknowledged that patients could indeed have overlapping features of COPD and asthma (GOLD & GINA, 2015). The GOLD and GINA collaboration is a common description of what is referred to as the asthma-COPD overlap syndrome (ACOS). ACOS

Pathophysiology

Asthma is defined as a heterogeneous disease, usually characterized by chronic airflow limitation (GOLD & GINA, 2015). It is defined by the history of respiratory symptoms such as wheeze, shortness of breath, chest tightness, and the ability to access medications, has timely access to follow-up care, assuring the patient’s ability to access medications.

COPD and asthma are prevalent worldwide diseases. COPD, the disease that becomes chronic over the years and becomes no longer being ignored. COPD is a difficult disease to diagnose and comes with a high health care economic cost. A tool to identify the understanding and management of COPD will improve as the disease is increasingly studied. Patient education for self-management to improve outcomes will be essential. COPD will become a large part of the nurse’s responsibilities when caring for the AGDS patient.

Signs and Symptoms

Signs and symptoms of ACOS involve signs and symptoms of both asthma and COPD.

Asthma signs and symptoms include:

- Variable expiratory airflow
- Wheezing
- Shortness of breath
- Chest tightness
- Gagging
- due to bronchospasm, airway wall thickening, and increased mucus (GOLD, 2015).

COPD signs and symptoms include:

- Dyspnea progressing over time; worse with exercise and persistent
- Chronic cough w or w/o sputum
- Lower respiratory tract infections
- History of exposure to smoke, dusts, vapors, or gases
- Family history of COPD and/ or childhood factors (GOLD, 2015).

Significance of Pathophysiology

Inflammation in asthma is affiliated with increases in GdA-T lymphocytes and eosinophils. Inflammation in COPD is characterized by increases in GdA-T lymphocytes, neutrophils, and macrophages (Waire, Kelly-Reich, Bushnell, Pacson, & Barnes, 2016). Treatment for the two diseases is usually by the use of bronchodilators and corticosteroids.

Stepwise Approach to Care

Table 1. Stepwise Approach to Care (GINA, 2017).

References


