

A commentary on chronic obstructive pulmonary disease

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Abstract

Chronic obstructive pulmonary disease (COPD) is associated with group of lung diseases leading to COPD. Emphysema (alveoli damage) and chronic bronchitis (inflammation in bronchial tubes) are common diseases progressed to COPD which left untreated may lead to heart problems and worsen the respiratory infections. With proper management and treatment COPD can be treated and reduce risk of other conditions associated with the disease.

Keywords: COPD; Chronic cough; Alpha-1-Antitrypsin (AAT)

Introduction

Symptoms of COPD are difficult to recognize at early stage for they may be mild with coughing and shortness of breath intermittently until significant lung damage causing difficulty in breathing often. Mild symptoms include shortness of breath during physical activities, recurrent cough. Progressive symptoms include shortness of breath even after low impact exercise like taking a flight of stairs, tightness in the chest region, wheezing, frequent respiratory infections, tiredness, mucus production due to chronic cough. Fatigue, swelling in the feet, ankles or legs and weight loss are symptoms shown at later stages. Causes of COPD are generally tobacco smoke. COPD is mostly seen in people above 40 years of age with a history of smoking habits. In addition to cigar smoke, second hand smoke and pipe smoke causes COPD. Prolonged exposure in polluted areas and dusts is another risk factor of COPD. Asthmatic patients have higher risk. Prolonged exposure to chemicals, fumes of burning coal for cooking or from workplace are other causes of COPD. Up to 1-5% of people are diagnosed with COPD, are diagnosed with the disease resulted from genetic disorder where a protein called Alpha-1-antitrypsin (AAT) is found low. AAT protein is synthesized in the Liver and secreted in to the blood stream protecting lungs from infections and diseases.

Complications like frequent respiratory infections, heart problems, lung cancer, pulmonary hypertension and de-

pression may arise if left untreated for prolonged periods. Any respiratory infections in people with COPD can raise more difficulty in breathing and damage the lung tissues further. COPD increases the risk of lung cancer. COPD may cause high blood pressure in the arteries of lungs.

Diagnosis of COPD is based on the symptoms and a physical examination. Tests are based sounds of the breathing heard through stethoscope during physical exam and symptoms, Spirometry (noninvasive test to assess the lung function), chest X-ray or CT scan for imaging tests (detailed lookout at lungs, heart and blood vessels) and an arterial blood gas test (arterial blood sample is collected to measure the oxygen, carbon dioxide levels in the blood).

Treatment for COPD slows down the progression of the disease, may prevent the further complications and reduce the symptoms. Treatment includes oxygen therapy, surgery and necessary lifestyle changes. Oxygen therapy is given where external oxygen is supplied through a mask or nasal cannula for better breathing when blood oxygen levels are too low. Surgery won't be required unless the disease is too severe or in case of failed treatments. Bullectomy is one type of surgery involving removal of giant bulla (abnormal air spaces) from the lungs which occupies more than 30% of the hemithorax. Another type of surgery is lung volume reduction (LVRS) is a surgical procedure to remove damaged lung tissue. In some cases lung transplant is one option. In some cases of severe emphysema, a less invasive therapy called endobronchial valves is an option. The valves are one-way valves which divert the inhaled air to healthy lungs preventing the air pathway from damaged lungs.

Conclusion

The reason for COPD is typically long-run exposure to irritants that injury your lungs and airways. Within the us, fag smoke is that the main cause. Pipe, cigar, and alternative sorts of tobacco smoke may also cause COPD, particularly if you inhale them. Exposure to alternative inhaled irritants will contribute to COPD. When the cause/reason for COPD are known then the population should take circumstances. But there are more depends for cigars and tobacco. So, the government should take necessary action to save mankind from life threatening's.

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