



STUDY ON THE FACTOR CAUSING SPREAD OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Biotechnology

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ABSTRACT

Chronic obstructive pulmonary disease (COPD) is the name of a collection of lung disease including chronic bronchitis emphysema and chronic obstructive airways disease. Chronic bronchitis and Emphysema "often occur together" and make up COPD. Smoking is a leading cause of both conditions. According to the American Lung Association, smoking cigarettes cause 85-90% of all COPD cases. COPD is the fourth common cause of death worldwide Killing more than 3 million people annually. It is estimated to become the third common cause of death by 2030. COPD is estimated to cause half a million death annually in India.

KEYWORDS

COPD, CB

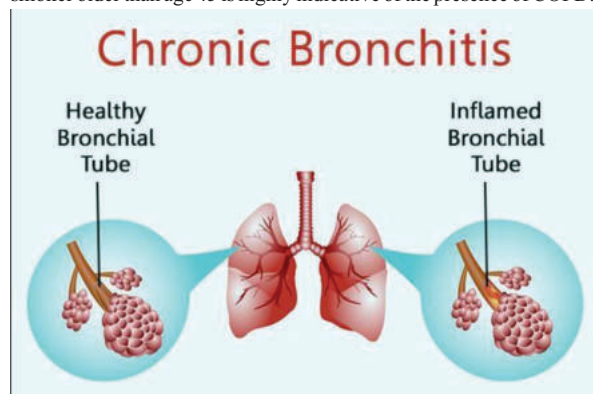
COPD is the most common lung disease. People with COPD have difficulties breathing primarily due to the narrowing of air ways. There are two main forms of COPD chronic bronchitis involves a long term cough with mucus and emphysema which involves to the lung over time.

1. Chronic Bronchitis

Chronic Bronchitis is characterized by chronic cough and sputum production which is present in about one out of three people with early COPD. It is defined as productive cough on most days of the month for at least 3 consecutive months per year for at least 2 consecutive years.

CB is the inflammation and excessive mucus build up in the bronchi. Chronic cough and sputum production in cigarette smokers may not be associated with chronic airflow obstruction. Chronic obstructive bronchitis defines chronic mucus hyper secretion associated with airflow obstruction. The anatomic correlates of chronic bronchitis are mucus gland hyperplasia and goblet cell metaplasia in large and medium size airways. Patients with COPD can also have inflammation, narrowing tortuosity and fibrosis of the small and medium size airways that contributes to the airflow limitation.

Physical examination and chest imaging are intensive method for diagnosis of COPD. Physical findings of hyper inflated lung such as low-lying diaphragms, decreased breath sounds and hyper resonant chest percussion are highly specific for COPD, but usually only in advance disease. It has been suggested in a study that a distance between the thyroid cartilage and the sterna notch less than 4 cm in smoker older than age 45 is highly indicative of the presence of COPD.



The symptoms of chronic bronchitis may include

- Wheezing
- Chest pain or discomfort

- Blueness in the fingernails, lips or skin due to a less of oxygen in the blood.
- Cracking breathing sound
- Smaller feet.
- Heart failure
- Shortness of breath or difficulty breathing.

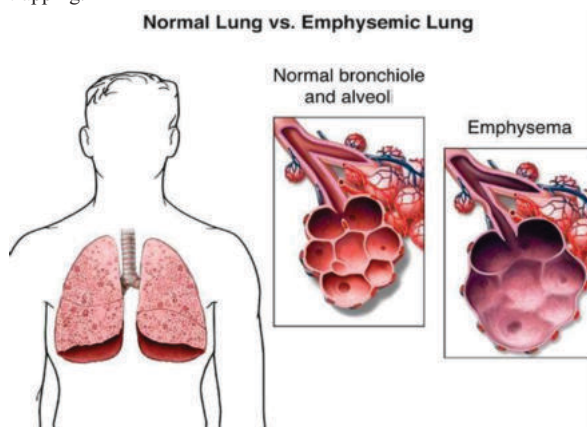
Chronic bronchitis/ COPD usually can't cured but yours symptoms can improve with treatment and diet plans. Treatment can improve your quality of life and sometimes keep your condition from getting worse. In chronic bronchitis eat a good source of protein at least twice a day to help maintain strong respiratory muscles. Good choice includes milk, eggs, cheese, meat, fish, nuts and dried beans or peas.

2. Emphysema

Emphysema is a lung disease. Emphysema occurs when the alveolar membrane breaks down. In this disease lung condition wherein the air sacs or alveoli became damaged air sacs supply oxygen to the blood, so with damaged air sacs less oxygen can enter the blood causes shortness of breath and fatigue.

The main cause of Emphysema is smoking but other causes include air pollution and chemical fumes. The symptoms includes shortness of breath, coughing and fatigue. Your health care provider can diagnose emphysema through imaging and breathing test.

Emphysema can be defined pathologically as the enlargement of distal airways due to destruction of acinus and disappearance of alveolar septae. This result in characteristic loss of elastic recoil which in turn cause slowing of airflow from the lungs, hyper inflammation, and air trapping.



Emphysema is one of the most preventable respiratory illnesses because it is so strongly linked to smoking. Air pollution as alpha 1 antitrypsin deficiency, and respiration infective can also play a role, but smoking is considered the number one cause.

The symptoms of emphysema may include:

- Being short of breath during everyday activities and exercise
- Coughing daily or almost everyday
- Rappid breathing and heartbeat
- Barrel shaped chest
- Fatigue
- Difficulty sleeping
- wieght loss
- Heart issues
- Anxiety

There is no cure for either condition, but treatment can help a person manage the symptoms. Both conditions require similar treatment methods. These can include

- Bronchodilator
- Other medication
- Oxygen supply
- Antibiotics
- Pulmonary Rehabilitation
- Lifestyle changes
- Surgery
- Lung Transplant

The overall prognosis for most patients is poor with many patients being disabled from the progressive shortness of breath. The prevalence of the disease has a great impact on the disease and on health care systems around the world.

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